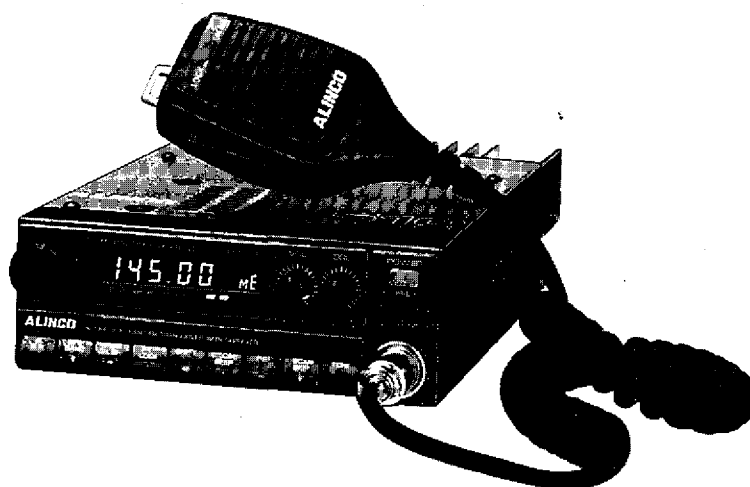


DR-510T/E

Service Manual



Index

•SPECIFICATION	2	•CTCSS SCHEMATIC DIAGRAM	29
•PARTS LIST	3~9	•TONE SQUELCH PC BOARD	30
•CABINET PARTS LOCATION	10	•X'CON PC BOARD	31
•ADJUSTMENT (VHF)	11	•TONE BURST PC BOARD	32
•ADJUSTMENT (UHF)	12	•APC PC BOARD	32
•BLOCK DIAGRAM	13	•VHF VCO PC BOARD	33
•CONNECTION DIAGRAM	14	•UHF VCO PC BOARD	33
•VHF MAIN SCHEMATIC DIAGRAM	15~17	•SQUELCH PC BOARD	34
•UHF MAIN SCHEMATIC DIAGRAM	18~20	•X'CON-SUB PC BOARD	34
•PA SCHEMATIC DIAGRAM	21	•EARPHONE JACK PC BOARD	34
•VHF PA AND MAIN PC BOARD	22, 23	•VHF DRIVE PC BOARD	35
•UHF PA AND MAIN PC BOARD	24, 25	•UHF DRIVE PC BOARD	35
•CONTROL SCHEMATIC DIAGRAM	26	•IF PC BOARD	35
•CONTROL PC BOARD	27	•RX SW PC BOARD	36
•DUPLEXER SCHEMATIC DIAGRAM	28	•MIC PC BOARD	36
•DUPLEXER PC BOARD	28	•LOCK SW PC BOARD	36

**ALINCO ELECTRONICS INC.**

PECIFICATIONS

General

Frequency Coverage	144.0~148.0 MHz (DR-510T) 440.0~450.0 MHz 144.0~146.0 MHz (DR-510E) 430.0~440.0 MHz
Antenna Impedance	50 ohms unbalanced
Power Supply Requirement	13.8 Volts D.C.
Current Drain at 13.8 V	Receiving Squelched: does not exceed 500 mA Transmitting High: 45 W approx. 9.5 A at VHF 35 W approx. 10 A at UHF Low: 5 W approx. 4 A at VHF 5 W approx. 4 A at UHF
Dimensions	140 mm (W)×50 mm (H)×205 mm (D) (5½"×2"×8⅛")
Weight	Approx. 1.7 kgs. (3.75 lbs.)

Transmitter

Output Power	High; 45 Watts at VHF, 35 Watts at UHF Low; Approx. 5 Watts at both bands
Modulation Mode	16F3
Modulation System	Variable Reactance F.M.
Frequency Deviation	±5 kHz
Spurious Emission	More than 60 dB below carrier
Microphone	Electret Condenser Microphone
Operating Mode	Simplex Duplex: ±600 kHz from receive frequency at VHF : ±5, 1.6, 7.6 MHz from receive frequency at UHF (Odd offsets programmable)
IF Encoder	Built-in

Receiver

Receiving System	Superhetrodyne, dual conversion
Modulation Acceptance	16F3
Intermediate Frequency	1st 10.7 MHz 2nd 455 kHz at VHF 1st 30.825 MHz 2nd 455 kHz at UHF
Sensitivity	12 dB SINAD less than 0.16 μV
Selectivity	More than ±6 kHz at -6 dB Less than ±12 kHz at -60 dB
Power Output	More than 1.5 Watts (8 ohms-10% Distortion)
Speaker Impedance	8 ohms

PARTS LIST

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
UHF Drive Unit								
R7	RK0018	Chip R, MCR10EZJH101E	R43	RK0045	Chip R, MCR10EZJH472E	R136	RD0018	R. 1/4 W 100Ω R20
R8	RK0035	Chip R, MCR10EZJH102E (DR-510T only)	R44	RK0005	Chip R, MCR10EZJH220E	R137	RD0116	R. R20 R02 J1R0
R8	RK0048	Chip R, MCR10EZJH682F (DR-510E only)	R45	RK0045	Chip R, MCR10EZJH472E	R138	RK0062	Chip R, MCR10EZJH473E
R9	RK0105	Chip R, MCR10EZJH2R2E (DR-510T only)	R46	RK0062	Chip R, MCR10EZJH473E	R140	RK0052	Chip R, MCR10EZJH103E
R9	RK0011	Chip R, MCR10EZJH470E (DR-510E only)	R47	RK0062	Chip R, MCR10EZJH473E	R141	RK0035	Chip R, MCR10EZJH102E
R10	RK0011	Chip R, MCR10EZJH470E	R48	RK0062	Chip R, MCR10EZJH473E	R142	RK0035	Chip R, MCR10EZJH102E
R11	RK0042	Chip R, MCR10EZJH332E	R49	RK0062	Chip R, MCR10EZJH473E			
R12	RK0031	Chip R, MCR10EZJH681E	R50	RK0062	Chip R, MCR10EZJH473E	C1	CU0011	Chip C, C2012CH1H100D
R13	RK0011	Chip R, MCR10EZJH470E	R51	RK0018	Chip R, MCR10EZJH101E	C2	CU0004	Chip C, C2012CH1H030C
R14	RK0005	Chip R, MCR10EZJH220E	R52	RK0052	Chip R, MCR10EZJH103E	C3	CU0035	Chip C, C2012CH1H101K
R17	RK0035	Chip R, MCR10EZJH102E (DR-510T only)	R53	RK0056	Chip R, MCR10EZJH223E	C4	CU8016	Chip C, C2012B1H102K
R17	RK0062	Chip R, MCR10EZJH473E (DR-510E only)	R54	RK0035	Chip R, MCR10EZJH102E	C5	CU8016	Chip C, C2012B1H102K
R18	RK0018	Chip R, MCR10EZJH101E (DR-510T only)	R55	RK0062	Chip R, MCR10EZJH473E	C6	CU0035	Chip C, C2012CH1H101K
R18	RK0028	Chip R, MCR10EZJH471E (DR-510E only)	R56	RK0062	Chip R, MCR10EZJH473E	C7	CU0002	Chip C, C2012CH1H010C
			R57	RK0062	Chip R, MCR10EZJH473E	C8	CU8016	Chip C, C2012B1H102K
Q4	XT0030	Transistor, 2SC3356T1 (DR-510T only)	R58	RK0022	Chip R, MCR10EZJH221E	C9	CU0025	Chip C, C2012CH1H390K
Q4	XT0074	Transistor, 2SC2759T1 (DR-510E only)	R59	RK0052	Chip R, MCR10EZJH103E	C10	CU8016	Chip C, C2012B1H102K
Q5	XT0030	Transistor, 2SC3356T1 (DR-510T only)	R60	RK0038	Chip R, MCR10EZJH182E	C11	CU8016	Chip C, C2012B1H102K
Q5	XT0074	Transistor, 2SC2759T1 (DR-510E only)	R61	RK0050	Chip R, MCR10EZJH822E	C12	CU8016	Chip C, C2012B1H102K
			R62	RK0038	Chip R, MCR10EZJH182E	C13	CU8016	Chip C, C2012B1H102K
L1	QC0018	Coil K3002 12NH	R63	RK0079	Chip R, MCR10EZJH474E	C14	CU0003	Chip C, C2012CH1H020C
L2	QC0018	Coil K3002 12NH	R64	RK0052	Chip R, MCR10EZJH103E	C15	CU0023	Chip C, C2012CH1H330K
			R66	RK0052	Chip R, MCR10EZJH103E	C16	CU8016	Chip C, C2012B1H102K
C3	CV8016	Chip C, C2012B1H102K	R67	RK0056	Chip R, MCR10EZJH223E	C17	CU0035	Chip C, C2012CH1H101K
C4	CV8016	Chip C, C2012B1H102K	R68	RK0035	Chip R, MCR10EZJH102E	C18	CU8016	Chip C, C2012B1H102K
C5	CV8016	Chip C, C2012B1H102K	R69	RK0018	Chip R, MCR10EZJH101E	C19	CU8016	Chip C, C2012B1H102K
C6	CV0064	Chip C, C2012B1H220J	R70	RK0045	Chip R, MCR10EZJH472E	C20	CU0008	Chip C, C2012CH1H070D
C7	CV8016	Chip C, C2012B1H102K	R71	RK0039	Chip R, MCR10EZJH222E	C21	CU0035	Chip C, C2012CH1H101K
C8	CV0051	Chip C, C2012CH1H471K	R72	RK0018	Chip R, MCR10EZJH101E	C22	CU8028	Chip C, C2012B1H103K
C9	CV0051	Chip C, C2012CH1H471K	R73	RK0035	Chip R, MCR10EZJH102E (DR-510E only)	C23	CU8028	Chip C, C2012B1H103K
C10	CV8016	Chip C, C2012B1H102K				C24	CU8028	Chip C, C2012B1H103K
C11	CS0049	Chip Tantal, TMC1C105TR	R74	RK0039	Chip R, MCR10EZJH222E	C25	CU8016	Chip C, C2012B1H102K
			R75	RK0106	Chip R, MCR10EZJH3R3E	C26	CU0016	Chip C, C2012CH1H150K
			R76	RK0018	Chip R, MCR10EZJH101E	C27	CU0029	Chip C, C2012CH1H560K
			R77	RK0022	Chip R, MCR10EZJH221E	C28	CE0064	Chemical C, 10 V 47 μF MS9
			R79	RK0031	Chip R, MCR10EZJH681E	C29	CE8028	Chemical C, B1H103K
			R81	RK0106	Chip R, MCR10EZJH3R3E	C30	CE8016	Chemical C, B1H102K
			R82	RK0062	Chip R, MCR10EZJH473E	C31	CE0030	Chemical C, 16 V 10 μF MS7
			R83	RK0062	Chip R, MCR10EZJH473E	C33	CU8028	Chip C, C2012B1H103K
			R85	RK0020	Chip R, MCR10EZJH151E	C34	CE0064	Chemical C, 10 V 47 μF MS9
			R86	RK0038	Chip R, MCR10EZJH182E	C35	CE0121	Chemical C, 10 V 100 μF MS7
			R87	RK0107	Chip R, MCR10EZJH000E (DR-510T only)	C36	CU8003	Chemical C, JF1E104Z
						C38	CU8016	Chip C, C2012B1H102K
			R87	RK0128	Chip R, MCR10EZJH5R6E (DR-510E only)	C39	CU8016	Chip C, C2012B1H102K
						C40	CE0064	Chemical C, 10 V 47 μF MS9
			R88	RK0022	Chip R, MCR10EZJH221E	C41	CU8007	Chemical C, JF1H473Z
			R89	RK0107	Chip R, MCR10EZJH000E (DR-510T only)	C42	CE0064	Chemical C, 10 V 47 μF MS9
						C44	CU8038	Chip C, CM316V5V105Z25VAT
			R89	RK0128	Chip R, MCR10EZJH5R6E (DR-510E only)	C45	CU8016	Chip C, C2012B1H102K
						C46	CE0149	Chemical C, 10 V 220 μF SSP
			R90	RK2008	Chip R, MCR10EZJH220E	C47	CE8028	Chemical C, 103K
			R91	RK0069	Chip R, MCR10EZJH104E	C48	CS0064	Chip Tantal C, TMC1A155TR
			R92	RK0069	Chip R, MCR10EZJH104E	C49	CE0064	Chemical C, 10 V 47 μF MS9
			R95	RK0035	Chip R, MCR10EZJH102E	C50	CE8028	Chemical C, 103K
			R96	RK0035	Chip R, MCR10EZJH102E	C51	CE0019	Chemical C, CH1H220K
			R97	RK0052	Chip R, MCR10EZJH103E	C52	CE8028	Chemical C, 103K
			R99	RK0079	Chip R, MCR10EZJH474E	C53	CE0043	Chemical C, CH1H221K
			R100	RK0062	Chip R, MCR10EZJH473E	C54	CE0035	Chemical C, CH1H101K
			R101	RK0039	Chip R, MCR10EZJH222E	C55	CU8016	Chip C, C2012B1H102K
			R102	RK0035	Chip R, MCR10EZJH102E	C56	CU0035	Chip C, C2012CH1H101K
			R106	RK0069	Chip R, MCR10EZJH104E	C57	CU8032	Chip C, C2012CH1H223K
			R107	RK0039	Chip R, MCR10EZJH222E	C58	CU8032	Chip C, C2012CH1H223K
			R108	RK0062	Chip R, MCR10EZJH473E	C59	CS0064	Chip Tantal C, TMC1A155TR
			R115	RK0076	Chip R, MCR10EZJH334E	C60	CQ0008	Film C, 50F2M683K
			R116	RK0076	Chip R, MCR10EZJH334E	C61	CU8016	Chip C, C2012B1H102K
			R119	RK0056	Chip R, MCR10EZJH223E	C62	CQ0008	Film C, 50F2M683K
			R120	RK0057	Chip R, MCR10EZJH273E	C63	CQ8028	Film C, 50F2M103K
			R123	RK0045	Chip R, MCR10EZJH472E	C64	CS0049	Chip Tantal C, TMC1C105TR
			R125	RK0056	Chip R, MCR10EZJH223E	C65	CS8028	Chip Tantal C, TMC1C103K
			R126	RK0107	Chip R, MCR10EZJH000E	C66	CU8016	Chip C, C2012B1H102K
			R127	RK0056	Chip R, MCR10EZJH223E	C67	CU8028	Chip C, C2012B1H103K
			R128	RK0052	Chip R, MCR10EZJH103E	C68	CE0149	Chemical C, 10 V 220 μF SSP
			R130	RK0052	Chip R, MCR10EZJH103E	C69	CE8028	Chemical C, 103K
			R131	RK0052	Chip R, MCR10EZJH103E	C70	CE0149	Chemical C, 10 V 220 μF SSP
			R133	RK0056	Chip R, MCR10EZJH223E	C71	CE0003	Chemical C, CH1H020C
			R134	RK0107	Chip R, MCR10EZJH000E	C72	CE0007	Chemical C, CH1H060D (DR 510E only)
			R135	RK0039	Chip R, MCR10EZJH222E			
UHF Main Unit								
R1	RK0056	Chip R, MCR10EZJH223E						
R2	RK0056	Chip R, MCR10EZJH223E						
R3	RK0069	Chip R, MCR10EZJH104E						
R4	RK0018	Chip R, MCR10EZJH101E						
R5	RK0018	Chip R, MCR10EZJH101E						
R6	RK0011	Chip R, MCR10EZJH470E						
R7	RK0106	Chip R, MCR10EZJH3R3E						
R8	RK0005	Chip R, MCR10EZJH220E						
R12	RK0022	Chip R, MCR10EZJH221E						
R13	RK0011	Chip R, MCR10EZJH470E						
R15	RK0062	Chip R, MCR10EZJH473E						
R16	RK0052	Chip R, MCR10EZJH103E						
R17	RK0028	Chip R, MCR10EZJH471E						
R18	RK0020	Chip R, MCR10EZJH151E						
R19	RK0018	Chip R, MCR10EZJH101E						
R20	RK0052	Chip R, MCR10EZJH103E						
R21	RK0106	Chip R, MCR10EZJH3R3E						
R24	RK0059	Chip R, MCR10EZJH333E						
R26	RK0035	Chip R, MCR10EZJH102E						
R28	RK0035	Chip R, MCR10EZJH102E						
R29	RK0035	Chip R, MCR10EZJH102E						
R31	RK0035	Chip R, MCR10EZJH102E						
R33	RK0039	Chip R, MCR10EZJH222E						
R35	RK0069	Chip R, MCR10EZJH104E						
R38	RK0052	Chip R, MCR10EZJH103E						
R40	RK0052	Chip R, MCR10EZJH103E						
R41	RK0038	Chip R, MCR10EZJH182E						
R42	RK0005	Chip R, MCR10EZJH220E						

Part Code	Part Name and Number
CU0015	Chip C, C2012CH1H150K (DR-510T only)
CE0004	Chemical C, CH1H030C (DR-510E only)
CU8016	Chip C, C2012B1H102K
CU0019	Chip C, C2012CH1H220K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU0011	Chip C, C2012CH1H100D
CU8016	Chip C, C2012B1H102K
CU8038	Chip C, CM316Y5V105Z25VAT
CU8038	Chip C, CM316Y5V105Z25VAT
CU8034	Chip C, C2012B1E333K
CE0064	Chemical C, 10 V 47 μ F MS9
CE0064	Chemical C, 10 V 47 μ F MS9
CE0064	Chemical C, 10 V 47 μ F MS9
CE0151	Chemical C, 10 V 470 μ F SSP
CU8003	Chemical C, JF1E104Z
CE0051	Chemical C, 16 V 1000 μ F MS16
CE8028	Chemical C, 103K
CE0051	Chemical C, 16 V 1000 μ F MS16
CE8028	Chemical C, 103K
CE0006	Chemical C, C2012CH1H050C
CE0064	Chemical C, 10 V 47 μ F MS9
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CE0030	Chemical C, 16 V 10 μ F MS7
CU8016	Chip C, C2012B1H102K
CE0199	Chemical C, 16 V 100 μ F MS7
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CE0122	Chemical C, 16 V 22 μ F SM7
CS0064	Chip Tantal C, TMC1A155TR
CU8025	Chip C, C2012B1H562K
CU8025	Chip C, C2012B1H562K
CE0125	Chemical C, 25 V 4.7 μ F MS7
CE8028	Chemical C, 103K
CE8028	Chemical C, 103K
CE8028	Chemical C, 103K
CE0035	Chemical C, CH1H101K
CE8028	Chemical C, 103K
CE8028	Chemical C, 103K
CE8028	Chemical C, 103K
CE8003	Chemical C, JF1E104Z
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU0035	Chip C, C2012CH1H101K
CU0035	Chip C, C2012CH1H101K
CU0035	Chip C, C2012CH1H101K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CK0003	Ceramic C, 50 V 102Z
CE0149	Chemical C, 10 V 220 μ F 8SP
RH0043	VR, VM6CK-PV-1S501B
RH0044	VR, VM6CK-PV-1S103B
RH0044	VR, VM6CK-PV-1S103B
RH0046	VR, VM6CK-PV-1S503B
RH0044	VR, VM6CK-PV-1S103B
RH0044	VR, VM6CK-PV-1S103B
RH0045	VR, VM6CK-PV-1S303B
RH0021	VR, H06S1A 10KB
CT0015	Trimmer C, CV05A0601
CT0015	Trimmer C, CV05A0601
CT0015	Trimmer C, CV05A0601
CT0024	Trimmer C, ECR1A010A12
CT0024	Trimmer C, ECR1A010A12
CT0015	Trimmer C, CV05A0601

Ref. No.	Part Code	Part Name and Number
L1	QA0050	Coil 5x5 1/4 T
L2	QA0036	Coil 3x1.5 T
L3	QA0061	Coil 110-7H2-440C
L4	QA0061	Coil 110-7H2-440C
L5	QC0018	Coil K3002 12NH
L6	QK0050	Coil 5x5 1/4 T
L7	QA0042	Coil 30R8MIF
L8	QA0043	Coil 30R8MIF
L9	QA0043	Coil 30R8MIF
L10	QC0039	Coil NL322522T-1ROM
L11	QK0045	Coil 4x1R2-OR6
L13	QK0036	Coil 3x1.5 T
L14	QA0041	Coil 455K IF
L15	QC0048	Coil NL322522T 100K
L16	QC0020	Coil K3004 25NH
L17	QC0020	Coil K3004 25NH
IC1	XA0082	IC, MC7808CT
IC2	XA0078	IC, M54959
IC4	XA0079	IC, μ PC1241H
FL1	XF0005	XF IL30. 8M 15A HC49/T
FL2	XC0001	Ceramic F, CFW 455F
D1	XD0103	Diode, ISS226TE85L
D3	XD0040	Diode, DAN202KT96
D4	XD0040	Diode
D5	XD0104	Diode, 02C26. 2YTE85L
D6	XD0041	Diode, DAP202KT96
D7	XD0070	Diode, ISS265
D8	XD0070	Diode, ISS265
D9	XD0041	Diode, DAP202KT96
D10	XD0058	Diode, ISS181
D11	XD0040	Diode, DAN202KT96
D12	XD0040	Diode, DAN202KT96
D13	XD0080	Diode, RB400DT96
D14	XD0080	Diode, RB400DT96
D15	XD0040	Diode, DAN202KT96
D17	XD0040	Diode, DAN202KT96
D18	XD0078	Diode, DAN235KT96
D20	XL0011	LED, TLG211
Q1	XE0013	FET, 3SK184STX
Q2	XE0002	FET, 2SK125
Q3	XE0014	FET, 3SK184RTX
Q4	XT0059	Transistor, 2SC3082
Q5	XT0077	Transistor, 2SC3326ATE85L
Q6	XT0061	Transistor, 2SB1132T100Q
Q7	XT0061	Transistor, 2SB1132T100Q
Q8	XU0018	Digital Transistor DTC124EKT96
Q9	XU0018	Digital Transistor DTC124EKT96
Q10	XT0037	Transistor, 2SC2412KT96R
Q11	XT0037	Transistor, 2SC2412KT96R
Q13	XT0037	Transistor, 2SC2412KT96R
Q14	XT0037	Transistor, 2SC2412KT96R
Q15	XT0037	Transistor, 2SC2412KT96R
Q16	XT0038	Transistor, 2SA1037KT96R
Q17	XT0030	Transistor, 2SC3356T1
Q18	XT0030	Transistor, 2SC3356T1
Q19	XT0037	Transistor, 2SC2412KT96R
Q20	XT0078	Transistor, 2SC3369
Q21	XT0064	Transistor, 2SD1761E
Q22	XT0037	Transistor, 2SC2412KT96R
Q23	XT0037	Transistor, 2SC2412KT96R
Q24	XT0037	Transistor, 2SC2412KT96R
Q25	XU0012	Digital Transistor DTC114EKT96
X1	XQ0037	Xtal HC-49/u 12.8 MHz
X2	XQ0034	Xtal HC-49/u 30.4 MHz
TH1	Thermistor	TD 5A150D
UHF VCO Unit		
R1	RK0019	Chip R, MCR10EZJ121E

Ref. No.	Part Code	Part Name and Number
R2	RK0052	Chip R, MCR10EZJ103E
R3	RK0056	Chip R, MCR10EZJ223E
R4	RK0018	Chip R, MCR10EZJ101E
R5	RK0028	Chip R, MCR10EZJ471E
R6	RK0022	Chip R, MCR10EZJ221E (DR-510E only)
R8	RK0037	Chip R, MCR10EZJ152E
R9	RK0011	Chip R, MCR10EZJ470E
R10	RK0052	Chip R, MCR10EZJ103E
R11	RK0069	Chip R, MCR10EZJ104E
R12	RK0028	Chip R, MCR10EZJ471E
R13	RK0022	Chip R, MCR10EZJ221E (DR-510E only)
R14	RK0011	Chip R, MCR10EZJ470E
R15	RK0107	Chip R, MCR10EZJ000E
R16	RK0107	Chip R, MCR10EZJ000E
R17	RK0052	Chip R, MCR10EZJ103E
R18	RK0035	Chip R, MCR10EZJ102E
R19	RK0052	Chip R, MCR10EZJ103E
C1	CU8016	Chip C, C2012B1H102K
C2	CU8028	Chip C, C2012B1H103K
C3	CU0003	Chip C, C2012CH1H020C
C4	CU0009	Chip C, C2012CH1H080D
C5	CU0011	Chip C, C2012CH1H100D
C6	CU0061	Chip C, C2012CH1H120J
C7	CU0029	Chip C, C2012CH1H560K (DR-510T only)
C7	CU0008	Chip C, C2012CH1H070D (DR-510E only)
C8	CU8016	Chip C, C2012B1H102K
C9	CU0003	Chip C, C2012CH1H020C
C10	CU0009	Chip C, C2012CH1H080D
C11	CU0011	Chip C, C2012CH1H100D
C13	CU8016	Chip C, C2012B1H102K
C14	CU8016	Chip C, C2012B1H102K
C15	CU8016	Chip C, C2012B1H102K
C16	CU8016	Chip C, C2012B1H102K
C17	CU0001	Chip C, C2012CH1H0R5C
C18	CU8016	Chip C, C2012B1H102K
C19	CU0003	Chip C, C2012CH1H020C
C20	CU8016	Chip C, C2012B1H102K
Q1	XT0074	Transistor 2SC2759T1
Q2	XE0010	Transistor 2SK508K52T1
Q3	XT0037	Transistor 2SC2412KT96R
Q4	XE0010	Transistor 2SK508K52T1
Q5	XU0012	Transistor DTC114EKT96
D1	XD0100	Varicap 1SV164T1
D2	XD0100	Varicap 1SV164T1
D3	XD0100	Varicap 1SV164T1
D4	XD0100	Varicap 1SV164T1
D5	XD0078	Diode DAN235KT96
TC1	CT0022	Trimmer C, ECRJA020E12W
TC2	CT0021	Trimmer C, ECRJA010A12W
L1	QK0076	Coil QK0076 (DR-510T only)
L1	QK0039	Coil QK0039 (DR-510E only)
L2	QK0039	Coil QK0039
L3	QC0036	Coil NL322522T-R56M
L4	QC0036	Coil NL322522T-R56M
L5	QC0036	Coil NL322522T-R56M
L6	QC0036	Coil NL322522T-R56M
L7	QC0036	Coil NL322522T-R56M
L8	QC0036	Coil NL322522T-R56M
L9	QC0022	Coil K300639NH
L10	QC0010	Coil MLF3216E100M (DR-510T only)
L10	QC0052	Coil LER015TR56M (DR-510E only)
RX-SW Unit		
R1	RK0062	Chip R, MCR10EZJ473E
R2	RK0107	Chip R, MCR10EZJ000E
R3	RK0107	Chip R, MCR10EZJ000E
R4	RK0107	Chip R, MCR10EZJ000E

Ref. No.	Part Code	Part Name and Number
R5	RK0107	Chip R, MCR10EZHJ000E
D1	XD0040	Diode DAN202KT96
D2	XD0040	Diode DAN202KT96
D3	XD0041	Diode DAP202KT96
D4	XD0105	Diode 02CZ3.9XTE85L
D5	XD0105	Diode 02CZ3.9XTE85L
C1	CS0049	Chip Tantal, TMC1C105TR
C2	CS0049	Chip Tantal, TMC1C105TR
C3	CS0049	Chip Tantal, TMC1C105TR
Q1	XU0019	Transistor DTA114YKT96
Q2	XU0021	Transistor FMC3T98
Q3	XU0019	Transistor DTA114YKT96
Q4	XU0019	Transistor DTA114YKT96

APC Unit

R1	RK0039	Chip R, MCR10EZHJ222E
R2	RK0035	Chip R, MCR10EZHJ102E
R3	RK0037	Chip R, MCR10EZHJ152E
R4	RK0052	Chip R, MCR10EZHJ103E
R5	RK0052	Chip R, MCR10EZHJ103E
R6	RK0036	Chip R, MCR10EZHJ122E
C1	CU8016	Chip C, C2012B1H102K
C2	CS0064	Chip Tantal, TMC1A155TR
C3	CU8024	Chip C, C2012B1H472K
C4	CU8016	Chip C, C2012B1H102K
C5	CU8024	Chip C, C2012B1H472K
C6	CU8016	Chip C, C2012B1H102K
Q1	XU0020	Transistor FMW1T98
Q2	XU0020	Transistor FMW1T98
Q3	XU0038	Transistor 2SA1037KT96R

Lock SW Unit

R1	RK0045	Chip R, MCR10EZHJ472E
R2	RK0045	Chip R, MCR10EZHJ472E
R3	RK0045	Chip R, MCR10EZHJ472E
R4	RK0045	Chip R, MCR10EZHJ472E
R5	RK0045	Chip R, MCR10EZHJ472E
R6	RK0052	Chip R, MCR10EZHJ103E
C1	CU8016	Chip C, C2012B1H102K
C2	CU8016	Chip C, C2012B1H102K
D1	XD0040	Diode DAN202KT96
Q1	XT0038	Transistor 2SA1037KT96R
Q2	XT0038	Transistor 2SA1037KT96R
Q3	XT0037	Transistor 2SC2412KT96R

IF Unit

R1	RK0069	Chip R, MCR10EZHJ104E
R2	RK0069	Chip R, MCR10EZHJ104E
R4	RK0042	Chip R, MCR10EZHJ332E
R5	RK0038	Chip R, MCR10EZHJ182E
C2	CU8016	Chip C, C2012B1H102K
C3	CU0066	Chip C, C2012CH1H330J
C4	CU8024	Chip C, C2012B1H472K
C5	CU2059	Chip C, C2012SL1H561J
C6	CU8024	Chip C, C2012B1H472K
C7	CU8028	Chip C, C2012B1H103K
C8	CU8003	Chip C, C2012JF1E104Z
C9	CU8003	Chip C, C2012JF1E104Z
C10	CU8003	Chip C, C2012JF1E104Z
IC1	XA0070	IC, MC3361D T
L1	QC0049	Coil, NL322522T-221K
L2	QC0050	Coil, NL453232T-102K

Ref. No.	Part Code	Part Name and Number
SQL Unit		
R1	RK0069	Chip R, MCR10EZHJ104E
R2	RK0040	Chip R, MCR10EZHJ272E
R3	RK0039	Chip R, MCR10EZHJ222E
R4	RK0056	Chip R, MCR10EZHJ223E
R5	RK0042	Chip R, MCR10EZHJ332E
R6	RK0048	Chip R, MCR10EZHJ682E
R7	RK0052	Chip R, MCR10EZHJ103E
R8	RK0069	Chip R, MCR10EZHJ104E
R9	RK0045	Chip R, MCR10EZHJ472E
R10	RK0079	Chip R, MCR10EZHJ474E
R11	RK0057	Chip R, MCR10EZHJ273E
R12	RK0056	Chip R, MCR10EZHJ223E
R13	RK0039	Chip R, MCR10EZHJ222E
R14	RK0061	Chip R, MCR10EZHJ393E
R15	RK0057	Chip R, MCR10EZHJ273E
R17	RK0039	Chip R, MCR10EZHJ222E

C1	CU8016	Chip C, C2012B1H102K
C2	CU0066	Chip C, C2012CH1H330J
C4	CU9015	Chip C, 32161E 0.1 μ FZ
C5	CU8038	Chip C, CM316Y5V105Z25VAT
C6	CS0065	Chip Tantal, TMC1D684TR
C7	CU8035	Chip C, C2012B1E393K
C8	CU8035	Chip C, C2012B1E393K
C9	CU8030	Chip C, C2012B1H153K
C10	CU8034	Chip C, C2012B1E333K
D1	XD0103	Diode ISS226TE85L
D2	XD0041	Diode DAP202KT96
Q1	XT0037	Transistor, 2SC2412KT96R
Q2	XT0037	Transistor, 2SC2412KT96R
Q3	XT0076	Transistor, 2SC2958TE85L
Q4	XT0076	Transistor, 2SC2958TE85L
Q5	XT0037	Transistor, 2SC2412KT96R
Q6	XT0037	Transistor, 2SC2412KT96R

MIC Unit

R1	RK0053	Chip R, MCR10EZHJ123E
R2	RK0062	Chip R, MCR10EZHJ473E
R3	RK0064	Chip R, MCR10EZHJ563E
R4	RK0018	Chip R, MCR10EZHJ101E
R5	RK0071	Chip R, MCR10EZHJ154E
R6	RK0069	Chip R, MCR10EZHJ104E
R7	RK0018	Chip R, MCR10EZHJ101E
R8	RK0062	Chip R, MCR10EZHJ473E
R9	RK0062	Chip R, MCR10EZHJ473E
R10	RK0030	Chip R, MCR10EZHJ561E
R11	RK0074	Chip R, MCR10EZHJ274E
R12	RK0064	Chip R, MCR10EZHJ563E
R13	RK0073	Chip R, MCR10EZHJ224E
R14	RK0067	Chip R, MCR10EZHJ823E
R15	RK0067	Chip R, MCR10EZHJ823E
R16	RK0067	Chip R, MCR10EZHJ823E
R17	RK0052	Chip R, MCR10EZHJ103E
R18	RK0107	Chip R, MCR10EZHJ000E
C1	CU8032	Chip C, C2012B1E223K
C2	CU8038	Chip C, CM316Y5V105Z25VAT
C3	CU8034	Chip C, C2012B1E333K
C4	CU8032	Chip C, C2012B1E223K
C6	CU8038	Chip C, CM316Y5V105Z25VAT
C7	CU0071	Chip C, C2012CH1H101J
C8	CU8021	Chip C, C2012B1H272K
C9	CU8038	Chip C, CM316Y5V105Z25VAT
C10	CU0071	Chip C, C2012CH1H101J
C11	CU8015	Chip C, C2012B1H821K
IC1	XA0068	IC, M5218FP-T01-1
IC2	XA0068	IC, M5218FP-T01-1

APC Unit

R1	RK0039	Chip R, MCR10EZHJ222E
----	--------	-----------------------

Ref. No.	Part Code	Part Name and Number
R2	RK0035	Chip R, MCR10EZHJ102E
R3	RK0037	Chip R, MCR10EZHJ152E
R4	RK0052	Chip R, MCR10EZHJ103E
R5	RK0052	Chip R, MCR10EZHJ103E
R6	RK0036	Chip R, MCR10EZHJ122E
Q1	XU0020	Transistor, FMW1 T98
Q2	XU0020	Transistor, FMW1 T98
Q3	XT0038	Transistor, 2SA1037KT96R
C1	CU8016	Chip C, C2012B1H102K
C2	CS0064	Chip Tantal, TMC1A155TR
C3	CU8024	Chip C, C2012B1H472K
C4	CU8016	Chip C, C2012B1H102K
C5	CU8024	Chip C, C2012B1H472K
C6	CU8016	Chip C, C2012B1H102K

VHF Drive Unit

R7	RK0018	Chip R, MCR10EZHJ101E
R8	RK0035	Chip R, MCR10EZHJ102E
R10	RK0014	Chip R, MCR10EZHJ680E
R11	RK0038	Chip R, MCR10EZHJ182E
R12	RK0028	Chip R, MCR10EZHJ471E
R13	RK0010	Chip R, MCR10EZHJ390E
R14	RK0005	Chip R, MCR10EZHJ220E
R16	RK0025	Chip R, MCR10EZHJ331E
R17	RK0045	Chip R, MCR10EZHJ472E
R19	RK0056	Chip R, MCR10EZHJ223E
Q4	XT0059	Transistor, 2SC3082KT96Q
Q5	XT0071	Transistor, 2SC3837KT96N

L1	QC0024	Chip L, K300860NH
C3	CU8028	Chip C, C2012B1H103K
C4	CU8028	Chip C, C2012B1H103K
C5	CU8016	Chip C, C2012B1H102K
C6	CU0066	Chip C, C2012CH1H330J
C7	CU8028	Chip C, C2012B1H103K
C8	CU8028	Chip C, C2012B1H103K
C9	CU8028	Chip C, C2012B1H103K
C10	CU8016	Chip C, C2012B1H102K
C11	CS0049	Chip Tantal, TMC1C105TR
C12	CU0003	Chip C, C2012CH1H202C

VHF VCO Unit

R1	RK0018	Chip R, MCR10EZHJ101E
R2	RK0056	Chip R, MCR10EZHJ223E
R3	RK0052	Chip R, MCR10EZHJ103E
R4	RK0018	Chip R, MCR10EZHJ101E
R5	RK0011	Chip R, MCR10EZHJ470E
R6	RK0027	Chip R, MCR10EZHJ391E
R7	RK0069	Chip R, MCR10EZHJ104E
R8	RK0052	Chip R, MCR10EZHJ103E
R9	RK0037	Chip R, MCR10EZHJ152E
R10	RK0067	Chip R, MCR10EZHJ823E
R11	RK0073	Chip R, MCR10EZHJ224E
R12	RK0011	Chip R, MCR10EZHJ470E
R13	RK0021	Chip R, MCR10EZHJ181E
R14	RK0048	Chip R, MCR10EZHJ682E
R15	RK0052	Chip R, MCR10EZHJ103E
R16	RK0052	Chip R, MCR10EZHJ103E
R17	RK0035	Chip R, MCR10EZHJ102E
D1	XD0040	Diode DAN202KT96
D2	XD0100	Varicap ISV164T1
D3	XD0101	Varicap ISV166T1
D4	XD0101	Varicap ISV166T1
D5	XD0094	Diode ISS153T1

Q1	XT0075	Transistor, 2SC2757T1
Q2	XE0010	FET 2SK508K52T1
Q3	XT0037	Transistor, 2SC2412KT96R
Q4	XE0011	FET 2SK508K51T1

Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
QC0045	Chip L, NL322522T-3R3M	X2	XQ0033	X'tal HC-49/u 10.245 MHz	R82	RK0052	Chip R, MCR10EZJ103E
QK0042	Coil 3x5R0x0R6	TH1	XS0004	Thermistor TD5A150D	R89	RK0018	Chip R, MCR10EZJ101E
QC0045	Chip L, NL322522T-3R3M				R90	RK0038	Chip R, MCR10EZJ182E
QC0045	Chip L, NL322522T-3R3M	IC1	XA0082	IC, MC7808CT	R91	RK0020	Chip R, MCR10EZJ151E
QK0041	Coil 3x4R0x0R8	IC2	XA0078	IC, M54959P	R94	RK0039	Chip R, MCR10EZJ222E
QC0039	Chip L, NL322522T-1R0M				R95	RK2008	Chip R, MCR50JZHJ220E
CT0021	Trimmer C, ECRJA010A12W	R1	RK0047	Chip R, MCR10EZJ562E	R96	RK0069	Chip R, MCR50JZHJ104E
CT0021	Trimmer C, ECRJA010A12W	R2	RK0052	Chip R, MCR10EZJ103E	R98	RK0069	Chip R, MCR50JZHJ104E
CU8016	Chip C, C2012B1H102K	R3	RK0056	Chip R, MCR10EZJ223E	R100	RK0045	Chip R, MCR50JZHJ472E
CU8016	Chip C, C2012B1H102K	R4	RK0018	Chip R, MCR10EZJ101E	R103	RK0055	Chip R, MCR50JZHJ183E
CU0004	Chip C, C2012CH1H030C	R5	RK0011	Chip R, MCR10EZJ470E	R104	RK0052	Chip R, MCR50JZHJ103E
CU8028	Chip C, C2012B1H103K	R6	RK0025	Chip R, MCR10EZJ331E	R109	RK0035	Chip R, MCR50JZHJ102E
CU0004	Chip C, C2012CH1H030C	R7	RK0011	Chip R, MCR10EZJ470E	R110	RK0069	Chip R, MCR50JZHJ104E
CU0011	Chip C, C2012CH1H100D	R8	RK0052	Chip R, MCR10EZJ103E	R111	RK0069	Chip R, MCR50JZHJ104E
CU0009	Chip C, C2012CH1H080D	R9	RK0062	Chip R, MCR10EZJ473E	R112	RK0069	Chip R, MCR50JZHJ104E
CU0064	Chip C, C2012CH1H220J	R10	RK0011	Chip R, MCR10EZJ470E	R113	RK0062	Chip R, MCR50JZHJ473E
CU0001	Chip C, C2012CH1H0R5C	R11	RK0062	Chip R, MCR10EZJ473E	R114	RK0035	Chip R, MCR50JZHJ102E
CU0065	Chip C, C2012CH1H270J	R12	RK0035	Chip R, MCR10EZJ102E	R115	RK0035	Chip R, MCR50JZHJ102E
CU8016	Chip C, C2012B1H102K	R13	RK0001	Chip R, MCR10EZJ100E	R116	RK0035	Chip R, MCR50JZHJ102E
CU0004	Chip C, C2012CH1H030C	R14	RK0074	Chip R, MCR10EZJ274E	R118	RK0107	Chip R, MCR50JZHJ000E
CU8028	Chip C, C2012B1H103K	R15	RK0018	Chip R, MCR10EZJ101E	R121	RK0107	Chip R, MCR50JZHJ000E
CU0004	Chip C, C2012CH1H030C	R16	RK0038	Chip R, MCR10EZJ182E	R122	RK0107	Chip R, MCR10EZJ000E
CU0061	Chip C, C2012CH1H120J	R17	RK0062	Chip R, MCR10EZJ473E	R124	RK0107	Chip R, MCR10EZJ000E
CU0066	Chip C, C2012CH1H330J	R18	RK0052	Chip R, MCR10EZJ103E	R127	RK0056	Chip R, MCR10EZJ223E
CU0060	Chip C, C2012CH1H470J	R19	RK0018	Chip R, MCR10EZJ101E	R128	RK0057	Chip R, MCR10EZJ273E
CU0011	Chip C, C2012CH1H100D	R20	RK0028	Chip R, MCR10EZJ471E	R129	RK0008	Chip R, MCR10EZJ330E
CU8016	Chip C, C2012B1H102K	R21	RK0018	Chip R, MCR10EZJ101E	R130	RK0052	Chip R, MCR10EZJ103E
CU0060	Chip C, C2012CH1H470J	R23	RK0038	Chip R, MCR10EZJ182E	R131	RK0052	Chip R, MCR10EZJ103E
CU8016	Chip C, C2012B1H102K	R25	RK0059	Chip R, MCR10EZJ333E	R132	RK0056	Chip R, MCR10EZJ223E
CU8016	Chip C, C2012B1H102K	R31	RK0035	Chip R, MCR10EZJ102E	R133	RK0052	Chip R, MCR10EZJ103E
CE0198	Chemical C, 10MS5100	R33	RK0069	Chip R, MCR10EZJ104E	R140	RK0107	Chip R, MCR10EZJ000E
		R34	RK0039	Chip R, MCR10EZJ222E	R141	RK0035	Chip R, MCR10EZJ102E
		R35	RK0107	Chip R, MCR10EZJ000E	R142	RD0116	R, R20R02J1R0
		R36	RK0038	Chip R, MCR10EZJ182E	R143	RK0039	Chip R, MCR10EZJ222E
		R37	RK0052	Chip R, MCR10EZJ103E	R144	RK0107	Chip R, MCR10EZJ000E
		R38	RK0038	Chip R, MCR10EZJ182E			
		R39	RK0035	Chip R, MCR10EZJ102E	L1	QA0038	Coil, 114M RF
		R40	RK0052	Chip R, MCR10EZJ103E	L2	QA0038	Coil, 114M RF
		R41	RK0038	Chip R, MCR10EZJ182E	L3	QA0053	Coil, 144M
		R42	RK0035	Chip R, MCR10EZJ102E	L4	QA0053	Coil, 144M
		R43	RK0001	Chip R, MCR10EZJ100E	L5	QA0054	Coil, 144M
		R44	RK0045	Chip R, MCR10EZJ472E	L6	QA0037	Coil, 144M TC
		R45	RK0062	Chip R, MCR10EZJ473E	L7	QA0039	Coil, 10R7M IF
		R46	RK0062	Chip R, MCR10EZJ473E	L8	QA0039	Coil, 10R7M IF
		R47	RK0062	Chip R, MCR10EZJ473E	L10	QA0041	Coil, 455K IF
		R48	RK0062	Chip R, MCR10EZJ473E	L11	QL0007	Choke Coil, 1R6MH R6A
		R49	RK0062	Chip R, MCR10EZJ473E	L13	QC0045	Chip L, NL322522T-3R3M
		R50	RK0048	Chip R, MCR10EZJ682E	L14	QC0034	Chip L, NL322522T-R39M
		R51	RK0076	Chip R, MCR10EZJ334E	L15	QK0032	Coil, 3x4T
		R52	RK0044	Chip R, MCR10EZJ392E	L16	QK0042	Coil, 3x5R0x0R6
		R53	RK0076	Chip R, MCR10EZJ334E			
		R54	RK0044	Chip R, MCR10EZJ392E	C1	CU0066	Chip C, C2012CH1H330J
		R55	RK0056	Chip R, MCR10EZJ223E	C2	CU0061	Chip C, C2012CH1H120J
		R58	RK0018	Chip R, MCR10EZJ101E	C3	CU0009	Chip C, C2012CH1H080C
		R59	RK0056	Chip R, MCR10EZJ223E	C4	CU0010	Chip C, C2012CH1H090D
		R60	RK0052	Chip R, MCR10EZJ103E	C5	CU8016	Chip C, C2012B1H102K
		R62	RK0052	Chip R, MCR10EZJ103E	C6	CU8016	Chip C, C2012B1H102K
		R63	RK0062	Chip R, MCR10EZJ473E	C7	CU8028	Chip C, C2012B1H103K
		R64	RK0040	Chip R, MCR10EZJ272E	C8	CU8016	Chip C, C2012B1H102K
		R65	RK0040	Chip R, MCR10EZJ272E	C9	CU8016	Chip C, C2012B1H102K
		R66	RK0050	Chip R, MCR10EZJ822E	C10	CU8028	Chip C, C2012B1H103K
		R67	RK0038	Chip R, MCR10EZJ182E	C11	CU0005	Chip C, C2012CH1H040C
		R68	RK0052	Chip R, MCR10EZJ103E	C12	CU0062	Chip C, C2012CH1H150J
		R69	RK0052	Chip R, MCR10EZJ103E	C13	CU8016	Chip C, C2012B1H102K
		R70	RK0045	Chip R, MCR10EZJ472E	C14	CU8028	Chip C, C2012B1H103K
		R71	RK0056	Chip R, MCR10EZJ223E	C15	CU0006	Chip C, C2012CH1H050C
		R72	RK0052	Chip R, MCR10EZJ103E	C16	CU8016	Chip C, C2012B1H102K
		R73	RK0056	Chip R, MCR10EZJ223E	C17	CU8028	Chip C, C2012B1H103K
		R74	RK0018	Chip R, MCR10EZJ101E	C18	CU8028	Chip C, C2012B1H103K
		R75	RK0035	Chip R, MCR10EZJ102E	C19	CU8028	Chip C, C2012B1H103K
		R76	RK0018	Chip R, MCR10EZJ101E	C20	CU8016	Chip C, C2012B1H102K
		R77	RK0035	Chip R, MCR10EZJ102E	C21	CE0064	Chemical C, 10 V 47 μ F MS9
		R78	RK0056	Chip R, MCR10EZJ223E	C22	CU2073	Chip C, C2012SL151J
		R79	RK0052	Chip R, MCR10EZJ103E	C23	CU8028	Chip C, C2012B1H103K
		R80	RK0018	Chip R, MCR10EZJ101E	C25	CU0066	Chip C, C2012CH1H330J
		R81	RK0052	Chip R, MCR10EZJ103E	C27	CU8016	Chip C, C2012B1H102K
					C32	CU8003	Chip C, C2012JF1E104Z
VHF Main Unit							
XE0013	FET, 3SK184STX						
XE0012	FET, 3SK131V11(V12)T1						
XT0059	Transistor, 2SC3082KT96Q						
XT0061	Transistor, 2SB1132T100Q						
XT0061	Transistor, 2SB1132T100Q						
XU0018	Transistor, DTC124EKT96						
XU0018	Transistor, DTC124EKT96						
XT0037	Transistor, 2SC2412KT96R						
XT0081	Transistor, 2SC2714Y						
XT0037	Transistor, 2SC2412KT96R						
XT0037	Transistor, 2SC2412KT96R						
XT0038	Transistor, 2SA1037KT96R						
XT0030	Transistor, 2SC3356T1						
XT0030	Transistor, 2SC3356T1						
XT0037	Transistor, 2SC2412KT96R						
XT0078	Transistor, 2SC3369						
XT0064	Transistor, 2SD1781E						
XT0037	Transistor, 2SC2412KT96R						
XT0037	Transistor, 2SC2412KT96R						
XD0103	Diode ISS226TE85L						
XD0040	Diode DAN202KT96						
XD0040	Diode DAN202KT96						
XD0104	Diode 02C26.2YTE85L						
XD0041	Diode DAP202KT96						
XD0070	Diode ISS265						
XD0070	Diode ISS265						
XD0041	Diode DAP202KT96						
XD0058	Diode ISS181TE85L						
XD0100	Varicap ISV164T1						
XD0100	Varicap ISV164T1						
XD0100	Varicap ISV164T1						
XD0040	Diode DAN202KT96						
XD0040	Diode DAN202KT96						
XD0080	Diode RB400DT96						
XD0080	Diode RB400DT96						
XF0004	XF 1L10.7M 15 A 49/T						
XC0001	Ceramic Filter CFW455F						
XQ0037	X'tal HC-49/u 12.8 MHz						

Ref. No.	Part Code	Part Name and Number
C33	CU8003	Chip C, C2012JF1E104Z
C34	CU8028	Chip C, C2012B1H103K
C35	CU8016	Chip C, C2012B1H102K
C36	CU8016	Chip C, C2012B1H102K
C37	CE0064	Chemical C, 10 V 47 μ F MS9
C38	CU8034	Chip C, C2012B1E333K
C39	CE0064	Chemical C, 10 V 47 μ F MS9
C40	CU8038	Chip C, CM316Y5V105Z25VAT
C41	CU8028	Chip C, C2012B1H103K
C42	CE0064	Chemical C, 10 V 47 μ F MS9
C43	CU8028	Chip C, C2012B1H103K
C44	CE0030	Chemical C, 16 V 10 μ F MS7
C45	CS0049	Chip Tantal, TMC1C105TR
C46	CE0064	Chemical C, 10 V 47 μ F MS9
C47	CU8016	Chip C, C2012B1H102K
C48	CU8028	Chip C, C2012B1H103K
C49	CU8028	Chip C, C2012B1H103K
C50	CU8028	Chip C, C2012B1H103K
C51	CU8003	Chip C, C2012JF1E104Z
C53	CU8028	Chip C, C2012B1H103K
C54	CU0064	Chip C, C2012CH1H220J
C55	CU0043	Chip C, C2012CH1H221K
C56	CU0071	Chip C, C2012CH1H101J
C57	CU0071	Chip C, C2012CH1H101J
C59	CQ0007	Film C, 50F2M473K
C60	CU0071	Chip C, C2012CH1H101J
C61	CU2051	Chip C, C2012SL471K
C62	CU8019	Chip C, C2012B1H182K
C63	CU8028	Chip C, C2012B1H103K
C65	CU8016	Chip C, C2012B1H102K
C67	CU8028	Chip C, C2012B1H103K
C68	CQ0008	Film C, 50F2M683K
C69	CS0049	Chip Tantal, TMC1C105TR
C70	CE0199	Chemical C, 16 V 100 μ F MS7
C72	CU0066	Chip C, C2012CH1H330J
C73	CU8016	Chip C, C2012B1H102K
C74	CU0066	Chip C, C2012CH1H330J
C75	CU8028	Chip C, C2012B1H103K
C76	CU0011	Chip C, C2012CH1H100D
C77	CU8016	Chip C, C2012B1H102K
C78	CU0011	Chip C, C2012CH1H100D
C79	CU8028	Chip C, C2012B1H103K
C80	CU2051	Chip C, C2012SL471K
C81	CU8016	Chip C, C2012B1H102K
C82	CU8028	Chip C, C2012B1H103K
C84	CU8028	Chip C, C2012B1H103K
C85	CU8028	Chip C, C2012B1H103K
C93	CE0051	Chemical C, 16 V 1000 μ F MS16
C96	CE0125	Chemical C, 25 V 4.7 μ F MS7
C97	CE0030	Chemical C, 16 V 10 μ F MS7
C98	CU8016	Chip C, C2012B1H102K
C100	CU8016	Chip C, C2012B1H102K
C101	CE0030	Chemical C, 16 V 10 μ F MS7
C102	CU8016	Chip C, C2012B1H102K
C103	CE0199	Chemical C, 16 V 100 μ F MS7
C104	CU8028	Chip C, C2012B1H103K
C105	CU8016	Chip C, C2012B1H102K
C106	CU8016	Chip C, C2012B1H102K
C107	CU8016	Chip C, C2012B1H102K
C108	CU8016	Chip C, C2012B1H102K
C109	CU8016	Chip C, C2012B1H102K
C113	CU8028	Chip C, C2012B1H103K
C114	CU0006	Chip C, C2012CH1H050C
C115	CU0061	Chip C, C2012CH1H120J
C116	CU0006	Chip C, C2012CH1H050C
C117	CU0061	Chip C, C2012CH1H120J
C118	CU0064	Chip C, C2012CH1H220J
C119	CU8028	Chip C, C2012B1H103K
C120	CS0033	Chip Tantal, TMC1A225TR
C121	CU8016	Chip C, C2012B1H102K
C141	CU0071	Chip C, C2012CH1H101J
C142	CU0071	Chip C, C2012CH1H101J
C143	CU0071	Chip C, C2012CH1H101J
C144	CU0071	Chip C, C2012CH1H101J
TC2	CT0023	Trimmer C, ECRLA006A12
TC3	CT0025	Trimmer C, ECRLA020E12

Ref. No.	Part Code	Part Name and Number
TC4	CT0025	Trimmer C, ECRLA020E12
VR1	RH0043	VR VM6CK-PV-1S501B
VR2	RH0044	VR VM6CK-PV-1S103B
VR3	RH0044	VR VM6CK-PV-1S103B
VR4	RH0046	VR VM6CK-PV-1S503B
VR5	RH0046	VR VM6CK-PV-1S503B
VR6	RH0044	VR VM6CK-PV-1S103B
VR7	RH0045	VR VM6CK-PV-1S303B
1750 Hz Tone Burst Unit		
C2	CU8003	Chip C, C2012JF1E
C3	CU0051	Chip C, C2012CH1H471K
C4	CU8005	Chip C, C2012B1H222K
C5	CU8016	Chip C, C2012B1H102K
C6	CU8028	Chip C, C2012B1H103K
C7	CS0049	Chip Tantal, TMC1C105TR
C8	CU8016	Chip C, C2012B1H102K
C9	CS0050	Chip Tantal, TMC1A475TR
C10	CU0011	Chip C, C2012CH1H100D
C11	CU0011	Chip C, C2012CH1H100D
C12	CU8016	Chip C, C2012B1H102K
R1	RK0079	Chip R, MCR10EZJH474E
R2	RK0062	Chip R, MCR10EZJH473E
R3	RK0069	Chip R, MCR10EZJH104E
R4	RK0056	Chip R, MCR10EZJH223E
R5	RK0052	Chip R, MCR10EZJH103E
R7	RK0107	Chip R, MCR10EZJH000E
R8	RK0107	Chip R, MCR10EZJH000E
R9	RK0066	Chip R, MCR10EZJH105E
R10	RK0107	Chip R, MCR10EZJH000E
R11	RK0062	Chip R, MCR10EZJH473E
R12	RK0018	Chip R, MCR10EZJH101E
R13	RK0035	Chip R, MCR10EZJH102E
R14	RK0035	Chip R, MCR10EZJH102E
R15	RK0062	Chip R, MCR10EZJH473E
R16	RK0107	Chip R, MCR10EZJH000E
R17	RK0107	Chip R, MCR10EZJH000E
R18	RK0062	Chip R, MCR10EZJH473E
R19	RK0107	Chip R, MCR10EZJH000E
VR1	RH0031	VR, CVR-42A-103AW1D
Q1	XT0037	Transistor, 2SC2412KT96R
Q2	XT0038	Transistor, 2SA1037KT96R
X1	XQ0021	X'Tal DSMAT 3.58 MHz
IC2	XA0084	IC, MPD4020BG-T1
IC3	XA0085	IC, MPD4069BG-T1
Tone Squelch Unit		
R1	RK0062	Chip R, MCR10EZJH473E
R2	RK0062	Chip R, MCR10EZJH473E
R3	RK0039	Chip R, MCR10EZJH222E
R4	RK0073	Chip R, MCR10EZJH224E
R5	RK0062	Chip R, MCR10EZJH473E
R6	RK0031	Chip R, MCR10EZJH681E
R7	RK0052	Chip R, MCR10EZJH103E
R8	RK0052	Chip R, MCR10EZJH103E
R9	RK0039	Chip R, MCR10EZJH222E
R10	RK0086	Chip R, MCR10EZJH105E
R11	RK0062	Chip R, MCR10EZJH473E
R12	RK0022	Chip R, MCR10EZJH221E
R13	RK0052	Chip R, MCR10EZJH103E
R14	RK0050	Chip R, MCR10EZJH822E
R15	RK0039	Chip R, MCR10EZJH222E
R16	RK0071	Chip R, MCR10EZJH154E
R17	RK0053	Chip R, MCR10EZJH123E
R18	RK0050	Chip R, MCR10EZJH822E
R19	RK0035	Chip R, MCR10EZJH102E

Ref. No.	Part Code	Part Name and Number
R20	RK0107	Chip R, MCR10EZJH000E
C1	CS0049	Chip Tantal, TMC1C105TR
C2	CS0049	Chip Tantal, TMC1C105TR
C3	CU8003	Chip C, C2012JF1E104Z
C4	CU8003	Chip C, C2012JF1E104Z
C5	CU8028	Chip C, C2012B1H103K
C6	CU0051	Chip Tantal, TMC1C106TR
C8	CU8003	Chip C, C2012JF1E104Z
C11	CS0051	Chip Tantal, TMC1C106TR
C12	CS0049	Chip Tantal, TMC1C105TR
C13	CU8038	Chip C, C3216B1H105K
C14	CS0049	Chip Tantal, TMC1C105TR
C15	CS0050	Chip Tantal, TMC1A475TR
C16	CC0105	Ceramic C, 50 V 4 pF CH
C17	CU8003	Chip C, C2012JF1E104Z
Q1	XU0002	Transistor, DTC114YKT96
Q2	XU0002	Transistor, DTC114YKT96
Q3	XT0037	Transistor, 2SC2412KT96R
Q4	XU0002	Transistor, DTC114YKT96
Q5	XU0002	Transistor, DTC114YKT96
Q6	XT0037	Transistor, 2SC2412KT96R
Q7	XU0002	Transistor, DTC114YKT96
IC1	XA0020	IC, MN6520
IC2	XA0019	IC, MPD4094BG
FAR1	XB0002	FAR, C4CA04194000K01
VR1	RH0051	VR, CVR-42A-472AW1D
Crystal Converter Unit		
R2	RK0048	Chip R, MCR10EZJH682E
R3	RK0054	Chip R, MCR10EZJH153E
R4	RK0045	Chip R, MCR10EZJH472E
R5	RK0028	Chip R, MCR10EZJH471E
R6	RK0052	Chip R, MCR10EZJH103E
R7	RK0040	Chip R, MCR10EZJH272E
R8	RK0062	Chip R, MCR10EZJH473E
R9	RK0054	Chip R, MCR10EZJH153E
R10	RK0028	Chip R, MCR10EZJH471E
R11	RK0020	Chip R, MCR10EZJH151E
R13	RK0045	Chip R, MCR10EZJH472E
R14	RK0054	Chip R, MCR10EZJH153E
R15	RK0059	Chip R, MCR10EZJH333E
R16	RK0025	Chip R, MCR10EZJH331E
R17	RK0054	Chip R, MCR10EZJH153E
R18	RK0062	Chip R, MCR10EZJH473E
R19	RK0025	Chip R, MCR10EZJH331E
R20	RK0039	Chip R, MCR10EZJH222E
R21	RK0039	Chip R, MCR10EZJH222E
R22	RK0056	Chip R, MCR10EZJH223E
R23	RK0054	Chip R, MCR10EZJH153E
R24	RK0037	Chip R, MCR10EZJH152E
R25	RK0031	Chip R, MCR10EZJH681E
R26	RK0048	Chip R, MCR10EZJH682E
R27	RK0056	Chip R, MCR10EZJH223E
R28	RK0035	Chip R, MCR10EZJH102E
R31	RK0011	Chip R, MCR10EZJH470E
R32	RK0052	Chip R, MCR10EZJH103E
D1	XD0078	Diode, DAN235KT96
D2	XD0078	Diode, DAN235KT96
X1	XQ0031	X'Tal UM-1 57.7777 MHz
Q1	XT0030	Transistor, 2SC3356T1
Q2	XT0030	Transistor, 2SC3356T1
Q3	XT0030	Transistor, 2SC3356T1
Q4	XT0030	Transistor, 2SC3356T1
Q5	XT0030	Transistor, 2SC3356T1
Q6	XT0030	Transistor, 2SC3356T1
TC1	CT0020	Trimmer C, CV38A2001
TC2	CT0020	Trimmer C, CV38A2001

Part Code	Part Name and Number
CT0020	Trimmer C, CV38A2001
CT0017	Trimmer C, CV38A0301
CT0017	Trimmer C, CV38A0301
CT0017	Trimmer C, CV38A0301
CT0018	Trimmer C, CV38A0501
CT0019	Trimmer C, CV38A1001
CT0019	Trimmer C, CV38A1001
CU0064	Chip C, C2012CH1H220J
CU0009	Chip C, C2012CH1H080D
CU0060	Chip C, C2012CH1H470J
CU0002	Chip C, C2012CH1H010C
CU0060	Chip C, C2012CH1H470J
CU0004	Chip C, C2012CH1H030C
CU8016	Chip C, C2012B1H102K
CU0071	Chip C, C2012CH1H101J
CU0064	Chip C, C2012CH1H220J
CU0002	Chip C, C2012CH1H010C
CU8028	Chip C, C2012B1H103K
CU0063	Chip C, C2012CH1H180J
CU0002	Chip C, C2012CH1H010J
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8026	Chip C, C2012B1H103K
CU0006	Chip C, C2012CH1H050C
CU0003	Chip C, C2012CH1H020C
CU0003	Chip C, C2012CH1H020C
CU0006	Chip C, C2012CH1H050C
CU0001	Chip C, C2012CH1H0R5C
CU0051	Chip C, C2012CH1H471K
CU0006	Chip C, C2012CH1H050C
CU8016	Chip C, C2012B1H102K
CU0009	Chip C, C2012CH1H080D
CU0071	Chip C, C2012CH1H101J
CU0066	Chip C, C2012CH1H330J
CU0062	Chip C, C2012CH1H150J
CU0061	Chip C, C2012CH1H120J
CU0004	Chip C, C2012CH1H030C
CU0061	Chip C, C2012CH1H120J
CU8016	Chip C, C2012B1H102K
CU0004	Chip C, C2012CH1H030C
CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K
CU8028	Chip C, C2012B1H103K
CU8028	Chip C, C2012B1H103K
CU8028	Chip C, C2012B1H103K
QK0037	Coil, 3x2.5T
QK0037	Coil, 3x2.5T
QA0046	Coil, 30R8MIF
QK0036	Coil, 3x1.5T
QK0036	Coil, 3x1.5T
QK0005	Coil, 3x3T
QA0048	Coil, 58MOSC
QA0047	Coil, 177MTC
QA0047	Coil, 177MTC
RD0108	JPW01 R-01
RD0108	JPW01 R-01

UHF PA Unit

RD1008	R, 1/2 W 150Ω
RD0052	R, 1/4 W 10K R20
CU0051	Chip C, C2012CH1H471K
CE0044	Chemical C, 16 V 10 μF MS5
CU0051	Chip C, C2012CH1H471K
CF0044	Chemical C, 16 V 10 μF MS5
CU7014	Chip C, UC232H0060D-T
CU0051	Chip C, C2012CH1H471K
CU0051	Chip C, C2012CH1H471K
CC5014	Ceramic C, HM60SJSLS040C
CU0005	Chip C, C2012CH1H040C
CC5019	Ceramic C, HM60SJSLS150J
CC5020	Ceramic C, HM60SJSLS180J
CC5021	Ceramic C, HM60SJSLS220J
CC0101	Ceramic C, 50 V 0.5 pF CH

Ref. No.	Part Code	Part Name and Number
C14	CU0051	Chip C, C2012CH1H471K
C15	CC5014	Ceramic C, HM60SJSLS040C
C16	CU7018	Chip C, VC232H0180J-T
C17	CC5014	Ceramic C, HM60SJSLS040C
C18	CU0051	Chip C, C2012CH1H471K
C19	CU0051	Chip C, C2012CH1H471K
C21	CU0002	Chip C, C2012CH1H010C
C25	CU8016	Chip C, C2012B1H102K
C26	CU0005	Chip C, C2012CH1H040C (DR-510E only)
VR1	RH0049	VR, TM64K2PV101B
L1	QK0044	Coil, 3x9R5x0R5
L2	QK0038	Coil, 3x1R5x0R7
L3	QK0040	Coil, 3x3R5x0R6
L4	QK0038	Coil, 3x1R5x0R7
L5	QK0038	Coil, 3x1R5x0R7
L6	QC0051	Inductor FL4H1R0
Q1	XA0077	IC, M57788M
D2	XD0106	Diode, UM9401
D3	XD0014	Diode, M1308
D4	XD0102	Diode, ISS101
D5	XD0102	Diode, ISS101

VHF PA Unit

R1	RD1008	R, 1/2 W 150Ω
R2	RD0054	R, 1/4 W 15 kΩ
C1	CE0044	Chemical C, 16 V 10 μF MS5
C2	CE0044	Chemical C, 16 V 10 μF MS5
C3	CC5002	Ceramic C, 500 V 10 pF SL
C4	CC5020	Ceramic C, HM60SJSLS180J
C5	CC5025	Ceramic C, HM60SJSLS102K
C6	CC5020	Ceramic C, HM60SJSLS180J
C7	CC5023	Ceramic C, HM60SJSLS390J
C8	CC0102	Ceramic C, 50 V 1 pF CH
C9	CC5003	Ceramic C, 500 V 33 pF SL
C10	CC0102	Ceramic C, 50 V 1 pF CH
C11	CC5021	Ceramic C, HM60SJSLS220J
C12	CU8016	Chip C, C2012B1H102K
C13	CU8016	Chip C, C2012B1H102K
C14	CU8016	Chip C, C2012B1H102K
C15	CU8016	Chip C, C2012B1H102K
C16	CU8016	Chip C, C2012B1H102K
D1	XD0107	Diode, G3B
D2	XD0106	Diode, UM9401
D3	XD0014	Diode, M1308
D4	XD0095	Diode, 1S2472
D5	XD0095	Diode, 1S2472
IC1	XA0043	IC, M57726
L1	QK0044	Coil, 3x9R5x0R5
L2	QK0031	Coil, 3x6T
L3	QK0041	Coil, 3x4R0x0R8
L4	QK0044	Coil, 3x9R5x0R5
L5	QK0041	Coil, 3x4R0x0R8
L6	QK0041	Coil, 3x4R0x0R8
L7	QC0051	Inductor, FL4H1R0
VR1	RH0049	VR, TM64K2PU101B

Duplexer Unit

R1	RK0039	Chip R, MCR10EZHJ222E
R2	RK0069	Chip R, MCR10EZHJ104E
R3	RK0069	Chip R, MCR10EZHJ104E
C1	CC5022	Ceramic C, HM60SJSLS270D
C2	CC5022	Ceramic C, HM60SJSLS270D
C3	CU7012	Chip C, UC232H0040C-T
C4	CU0051	Chip C, C2012CH1H471K

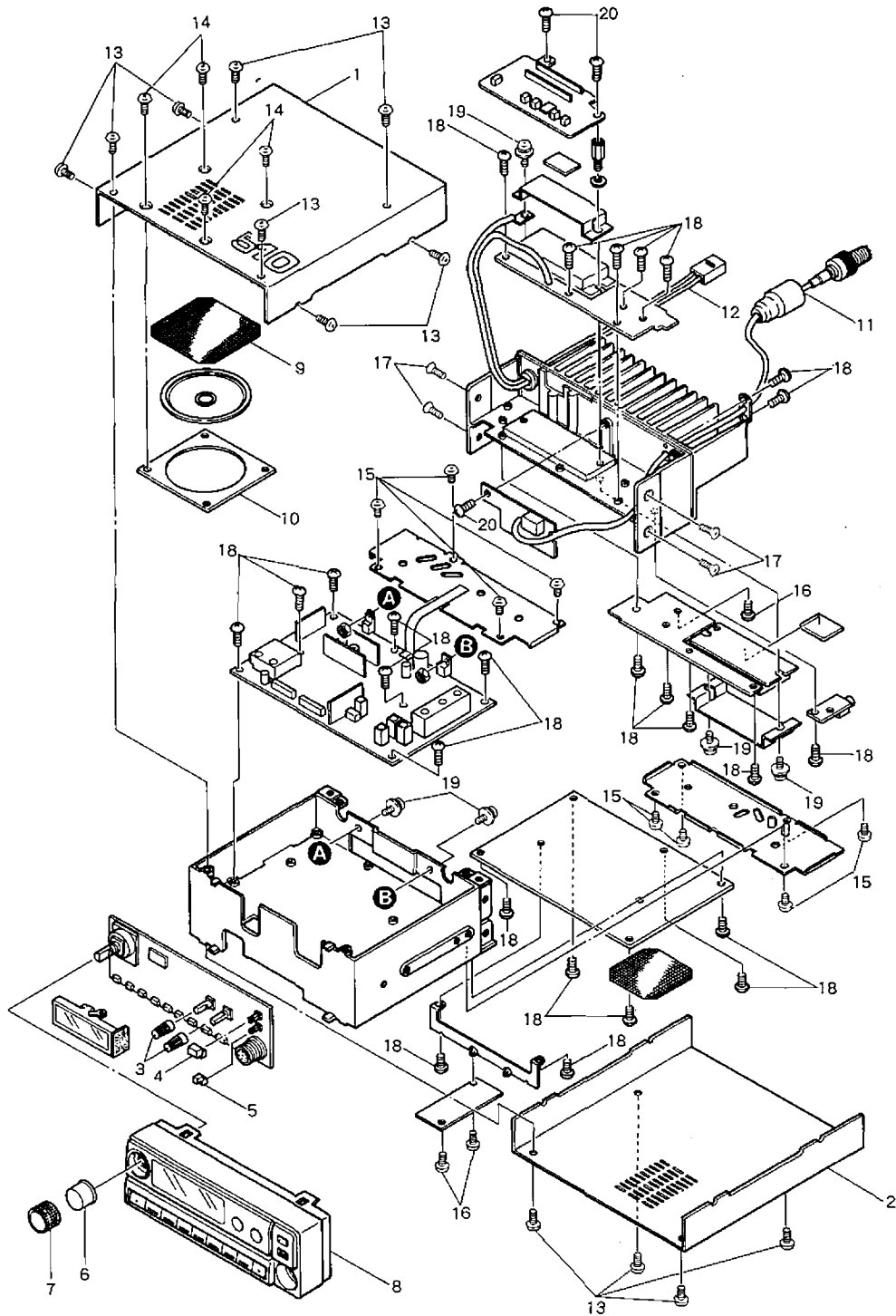
Ref. No.	Part Code	Part Name and Number
C5	CU0051	Chip C, C2012CH1H471K
C6	CC5016	Ceramic C, HM60SJSLS080D
C7	CC5015	Ceramic C, HM60SJSLS060D
C8	CC5015	Ceramic C, HM60SJSLS060D
C9	CU0011	Chip C, C2012CH1H100D
C10	CU0051	Chip C, C2012CH1H471K
C11	CS0049	Chip Tantal, TMC1C105TR
C12	CU8016	Chip C, C2012B1H102K
C13	CU0005	Chip C, C2012CH1H040C
L1	QK0055	Coil, 3x6T×0.8
L2	QK0055	Coil, 3x6T×0.8
L3	QK0054	Coil, 3x1.75T×0.8
L5	QK0054	Coil, 3x1.75T×0.8
L6	QK0054	Coil, 3x1.75T×0.8
RL1	UL0006	Relay, AG201344
Q1	XT0037	Transistor, 2SC2412KT96R

Dual Control Unit

R1	RK0035	Chip R, MCR10EZHJ102E
R2	RK0062	Chip R, MCR10EZHJ473E
R3	RK0062	Chip R, MCR10EZHJ473E
R4	RK0052	Chip R, MCR10EZHJ103E
R5	RK0018	Chip R, MCR10EZHJ101E
R6	RK0067	Chip R, MCR10EZHJ823E
R7	RK0071	Chip R, MCR10EZHJ154E
R8	RK0067	Chip R, MCR10EZHJ823E
R9	RK0059	Chip R, MCR10EZHJ333E
R10	RK0052	Chip R, MCR10EZHJ103E
R11	RK0062	Chip R, MCR10EZHJ473E
R12	RK0062	Chip R, MCR10EZHJ473E
R13	RK0062	Chip R, MCR10EZHJ473E
R14	RK0062	Chip R, MCR10EZHJ473E
R15	RK0062	Chip R, MCR10EZHJ473E
R16	RK0062	Chip R, MCR10EZHJ473E
R17	RK0062	Chip R, MCR10EZHJ473E
R18	RK0062	Chip R, MCR10EZHJ473E
R19	RK0062	Chip R, MCR10EZHJ473E
R20	RK0062	Chip R, MCR10EZHJ473E
R21	RK0062	Chip R, MCR10EZHJ473E
R22	RK0062	Chip R, MCR10EZHJ473E
R23	RK0062	Chip R, MCR10EZHJ473E
R24	RK0062	Chip R, MCR10EZHJ473E
R25	RK0062	Chip R, MCR10EZHJ473E
R26	RK0045	Chip R, MCR10EZHJ472E
R27	RK0070	Chip R, MCR10EZHJ124E
R28	RK0070	Chip R, MCR10EZHJ124E
R29	RK0070	Chip R, MCR10EZHJ124E
R30	RK0070	Chip R, MCR10EZHJ124E
R31	RK0062	Chip R, MCR10EZHJ473E
R35	RK0052	Chip R, MCR10EZHJ103E
R36	RK0052	Chip R, MCR10EZHJ103E
R37	RK0045	Chip R, MCR10EZHJ472E
R38	RK0069	Chip R, MCR10EZHJ104E
R39	RK0035	Chip R, MCR10EZHJ102E
R42	RK0069	Chip R, MCR10EZHJ104E
R43	RK1035	Chip R, MCR18EZHJ102E
R44	RK0052	Chip R, MCR10EZHJ103E
R47	RK0018	Chip R, MCR10EZHJ101E
R48	RK0062	Chip R, MCR10EZHJ473E
R49	RK0062	Chip R, MCR10EZHJ473E
R50	RK0038	Chip R, MCR10EZHJ182E
R51	RK0038	Chip R, MCR10EZHJ182E
R52	RK0038	Chip R, MCR10EZHJ182E
R53	RK0038	Chip R, MCR10EZHJ182E
R54	RK0038	Chip R, MCR10EZHJ182E
R55	RK1039	Chip R, MCR18EZHJ222E
R56	RK0035	Chip R, MCR10EZHJ102E
R57	RK0107	Chip R, MCR10EZHJ000E (DR-510T only)
R58	RK0035	Chip R, MCR10EZHJ102E
R59	RK0035	Chip R, MCR10EZHJ102E
R60	RK0035	Chip R, MCR10EZHJ102E
R61	RK0035	Chip R, MCR10EZHJ102E
R62	RK0035	Chip R, MCR10EZHJ102E

Ref. No.	Part Code	Part Name and Number
C1	CU0071	Chip C, C2012CH1H101J
C2	CU8016	Chip C, C2012B1H102K
C3	CU8016	Chip C, C2012B1H102K
C4	CU8016	Chip C, C2012B1H102K
C5	CU8016	Chip C, C2012B1H102K
C6	CU8016	Chip C, C2012B1H102K
C7	CU8016	Chip C, C2012B1H102K
C8	CU8016	Chip C, C2012B1H102K
C9	CU8016	Chip C, C2012B1H102K
C10	CU8016	Chip C, C2012B1H102K
C14	CU8016	Chip C, C2012B1H102K
C15	CU8016	Chip C, C2012B1H102K
C16	CU8016	Chip C, C2012B1H102K
C17	CE0057	Chemical C, 6.3 V 330 μ F MS9
C18	CU8028	Chip C, C2012B1H103K
C19	CE0044	Chemical C, 16 V 10 μ F MS5
C21	CU8024	Chip C, C2012B1H471K
C22	CS0051	Chip Tantal, TMC1C106TR
C23	CU8038	Chip C, CM316Y5V105Z25VAT
C24	CS0051	Chip Tantal, TMC1C106TR
C26	CU0071	Chip C, C2012CH1H101J
C27	CU0071	Chip C, C2012CH1H101J
C28	CU0071	Chip C, C2012CH1H101J
C29	CU8016	Chip C, C2012B1H102K
C30	CU8016	Chip C, C2012B1H102K
C31	CU8016	Chip C, C2012B1H102K
C32	CU8016	Chip C, C2012B1H102K
C33	CU8016	Chip C, C2012B1H102K
C34	CU8016	Chip C, C2012B1H102K
C35	CU8016	Chip C, C2012B1H102K
C36	CU8016	Chip C, C2012B1H102K
C38	CU8016	Chip C, C2012B1H102K
C39	CU8016	Chip C, C2012B1H102K
C40	CU8016	Chip C, C2012B1H102K
PL1	EP0004	Lamp, BQ031-30674A
PL2	EP0004	Lamp, BQ031-30674A
PL3	EP0004	Lamp, BQ031-30674A
PL4	EP0003	Lamp, BQ031-30403A
PL5	EP0003	Lamp, BQ031-30403A
VR1	RV0010	Volume, EVU-F2AF20B54
VR2	RV0009	Volume, EVU-F2AF20B14
VR3	RV0036	Volume, CVR-42A-102AW1D
SW1	UQ0011	Push SW, ESB-64801
SW2	UQ0011	Push SW, ESB-64801
SW3	UQ0013	Tact SW, EVQ-QEC-04K
SW4	UQ0013	Tact SW, EVQ-QEC-04K
SW5	UQ0013	Tact SW, EVQ-QEC-04K
SW6	UQ0013	Tact SW, EVQ-QEC-04K
SW7	UQ0013	Tact SW, EVQ-QEC-04K
SW8	UQ0013	Tact SW, EVQ-QEC-04K
SW9	UQ0013	Tact SW, EVQ-QEC-04K
SW10	UQ0013	Tact SW, EVQ-QEC-04K
SW11	UQ0013	Tact SW, EVQ-QEC-04K
SW12	UQ0013	Tact SW, EVQ-QEC-04K
IC1	XA0072	IC, MB88543-142M
IC2	XA0022	IC, MBL82C43PF
IC3	XA0033	IC, MPC393G-T
IC4	XA0074	IC, AN8006
IC5	XA0073	IC, MN1280-T
FAR1	XB0001	FAR, C4CA03580000K01
D3	XD0061	Diode, DA204K T96
D4	XD0040	Diode, DAN202K T96
D6	XD0040	Diode, DAN202K T96
LED1	XL0020	LED, TLG211
Q2	XU0015	Transistor, DTC144TK T96
Q5	XT0088	Transistor, 2SA1213Y
Q6	XT0037	Transistor, 2SC2412K T96R

CABINET PARTS LOCATION



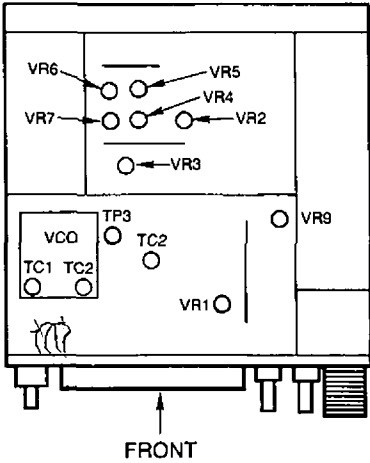
Ref. No.	Part Code	Part Name and Number
Mechanical Parts		
1	KU0059	Upper Case
2	KS0031	Lower Case
3	NK0010	Vol Knob
4	NP0015	Power Knob
5	NP0016	HI/LO Knob
6	NK0009	Dial Knob
7	ND0004	Dial Cover
8	KM0055	Front Panel
9	FF0013	SP Sheet
10	ST0009	SP Metal Crasp
11	UE0053	Coaxial Cable
12	UA0002	DC Power Cable

Screws		
13	AA0031	M2.6×5
14	AA0003	M2.6×5
15	AF0011	M2.6×4
16	AF0027	M2×4
17	AA0022	M3×6
18	AJ0015	2.6×6 (tap)
19	AD0001	M3×8
20	AA0028	M2.6×5

■ ADJUSTMENT (VHF)

Item	Adjustment point	Adjustment method
VCO P/D Voltage (RX)	TC2 (VCO Box)	Adjust TC2 so that the voltage of TP3 is 4V on the receiving mode.
VCO P/D Voltage (TX)	TC1 (VCO Box)	Adjust TC1 so that the voltage of TP3 is 3V on the transmisslon mode.
Frequency	TC2 (Main Board)	Set the unit in the transmission mode at 145.00 MHz and adjust TC2.
Power output	VR6 (Hi)	On "HI" position, turn VR6 for 45 W output at 145.00 MHz.
	VR7 (Lo)	On "LO" position, turn VR7 for 5 W output at 145.00 MHz.
RF Power Meter	VR4	Turn VR4 so that three segments will light on "LO" position.
Deviation	VR3	Input a signal of 1 KHz/25 mV into the MIC jack and adjust VR3 so that you obtain 4.9 KHz/Dev in the transmission mode.
MIC Gain	VR2	Input a signal of 1 KHz/10 mV into the MIC jack and adjust VR2 so that you obtain 4.0 KHz/Dev in the transmission mode.
Protection Circuit	VR5	Disconnect the antenna in the transmission mode and adjust VR5 so that the current consumption will be 5A.
Subaudible Tone Deviation (DR-510T)	VR1 (Tone squelch board)	On the "ENC" mode at 146.00 MHz, turn VR1 so that the deviation is 0.7 KHz.
1750 Hz Tone Deviation (DR-510E)	VR1 (Tone burst board)	Pressing Tone button at 145.00 MHz, turn VR1 so that the deviation is 3.5 KHz.
S-Meter (SG output: 3 dBμ EMF)	VR1	Turn VR1 so that the 1 begins to light.
Squelch Sensitivity (SG output: -6 dBμ EMF)	VR9	Turn the squelch control fully clockwise and turn VR9 so that the squelch will be closed at the SG output of -6 dBμ.

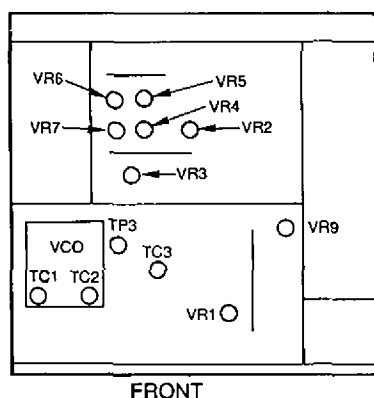
Upper Side View



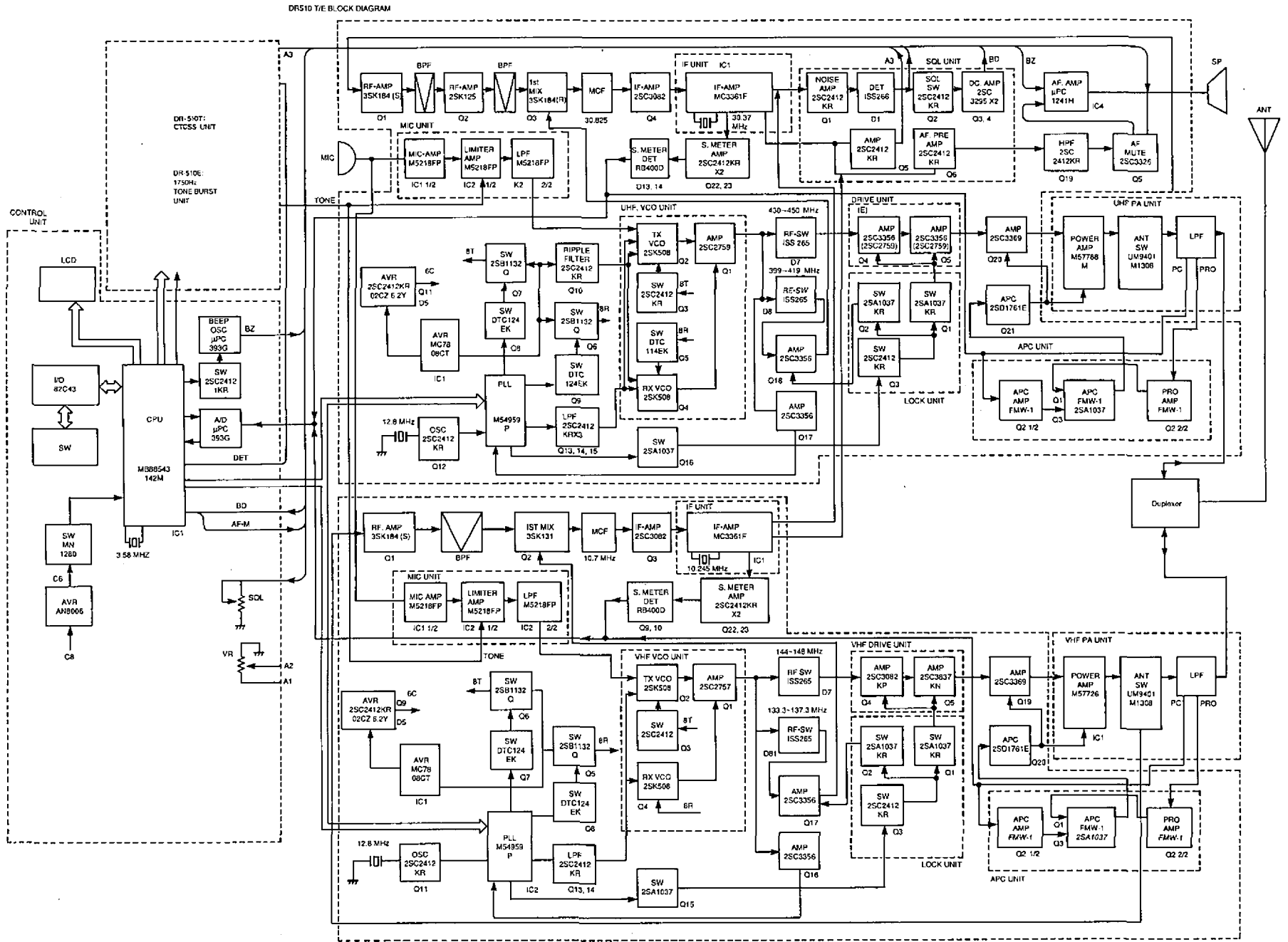
■ ADJUSTMENT (UHF)

Item	Adjustment point	Adjustment method
VCO P/D Voltage (RX)	TC2 (VCO Box)	Adjust TC2 so that the voltage of TP3 is 2 V on the receiving mode.
VCO P/D Voltage (TX)	TC1 (VCO Box)	Adjust TC1 so that the voltage of TP3 is 1 V on the transmission mode.
Frequency	TC3 (Main Board)	Set the unit in the transmission mode at 435.00 MHz (T: 445.00 MHz) and adjust TC3.
Power output	VR6 (Hi)	On "HI" position, turn VR6 for 35 W output at 435 (T: 445) MHz.
	VR7 (Lo)	On "LO" position, turn VR7 for 5 W output at 145.00 MHz.
RF Power Meter	VR4	Turn VR4 so that three segments will light on "LO" position.
Deviation	VR3	Input a signal of 1 KHz/25 mV into the MIC jack and adjust VR3 so that you obtain 4.9 KHz/Dev in the transmission mode.
MIC Gain	VR2	Input a signal of 1 KHz/10 mV into the MIC jack and adjust VR2 so that you obtain 4.0 KHz/Dev in the transmission mode.
Protection Circuit	VR5	Disconnect the antenna in the transmission mode and adjust VR5 so that the current consumption will be 4A.
Subaudible Tone Deviation (DR-510T)	VR1 (Tone squelch board)	On the "ENC" mode at 435.00 MHz, (T: 445.00 MHz), turn VR1 so that the deviation is 0.7 KHz.
1750 Hz Tone Deviation (DR-510E)	VR1 (Tone burst board)	Pressing Tone button at 435.00 MHz (T: 445.00 MHz), turn VR1 so that the deviation is 3.5 KHz.
S-Meter (SG output: 3 dB μ EMF)	VR1	Turn VR1 so that the <input type="checkbox"/> begins to light.
Squelch Sensitivity (SG output: -6 dB μ EMF)	VR9	Turn the squelch control fully clockwise and turn VR9 so that the squelch will be closed at the SG output of -6 dB μ .

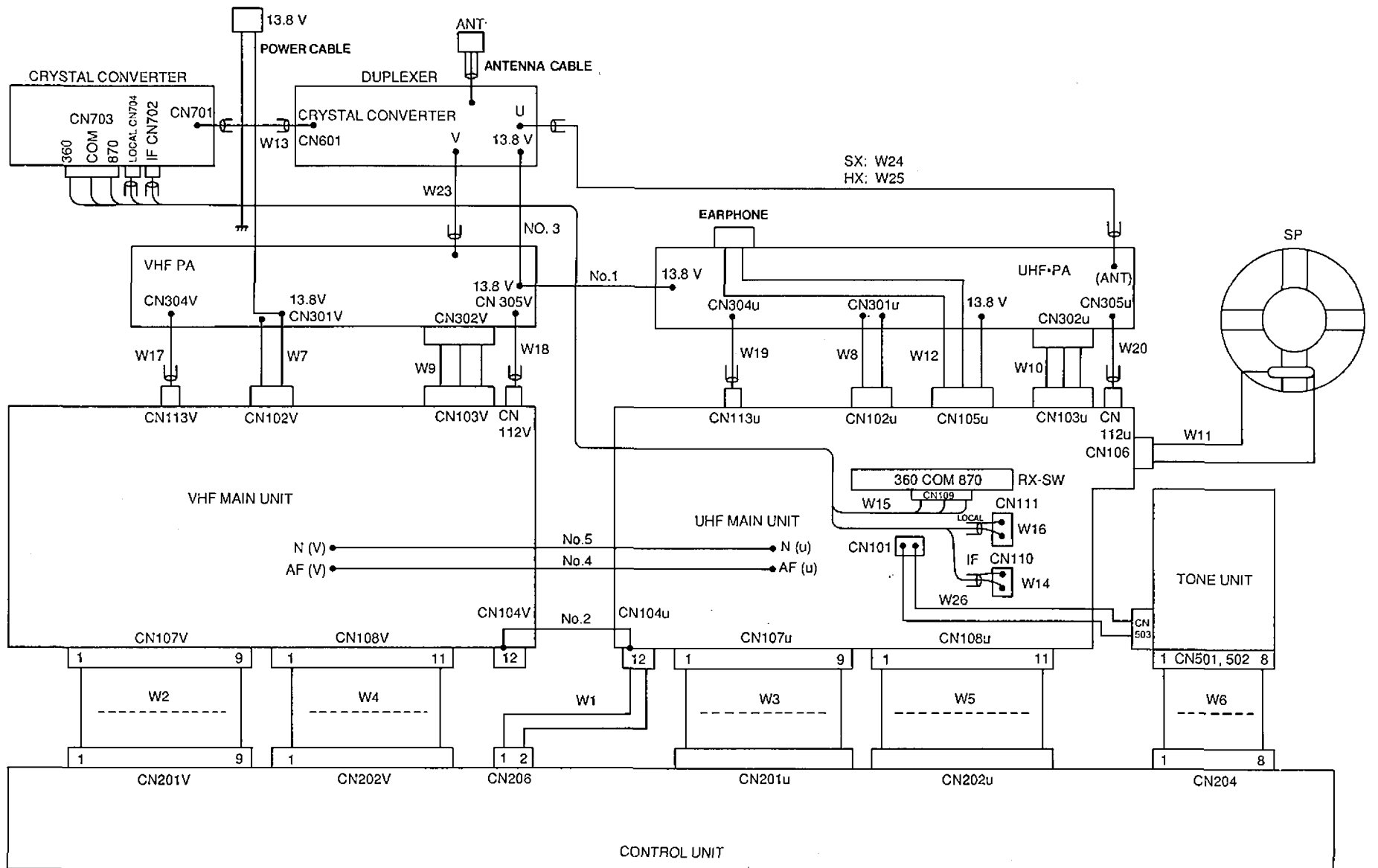
Lower Side View



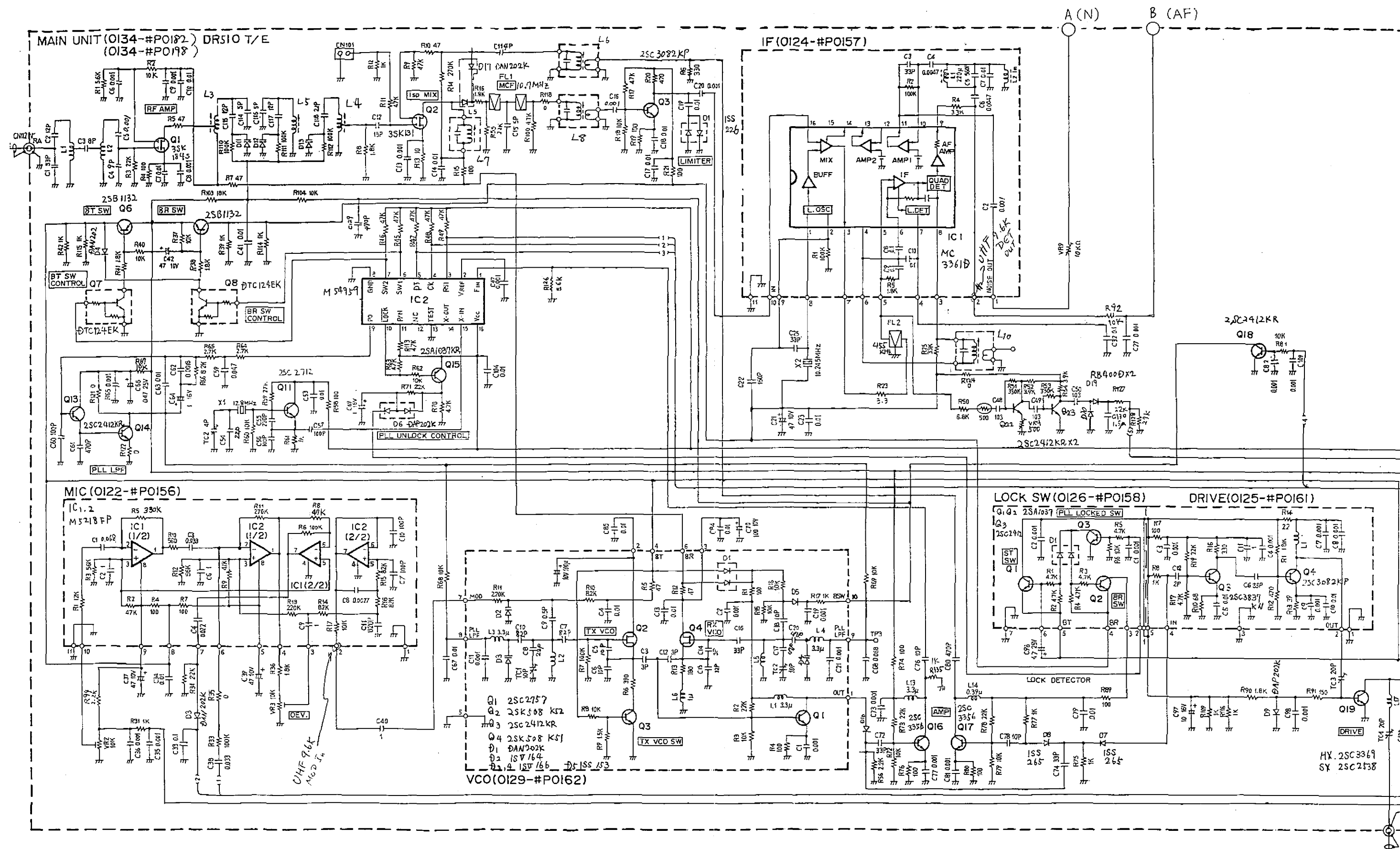
■ BLOCK DIAGRAM



■ CONNECTION DIAGRAM

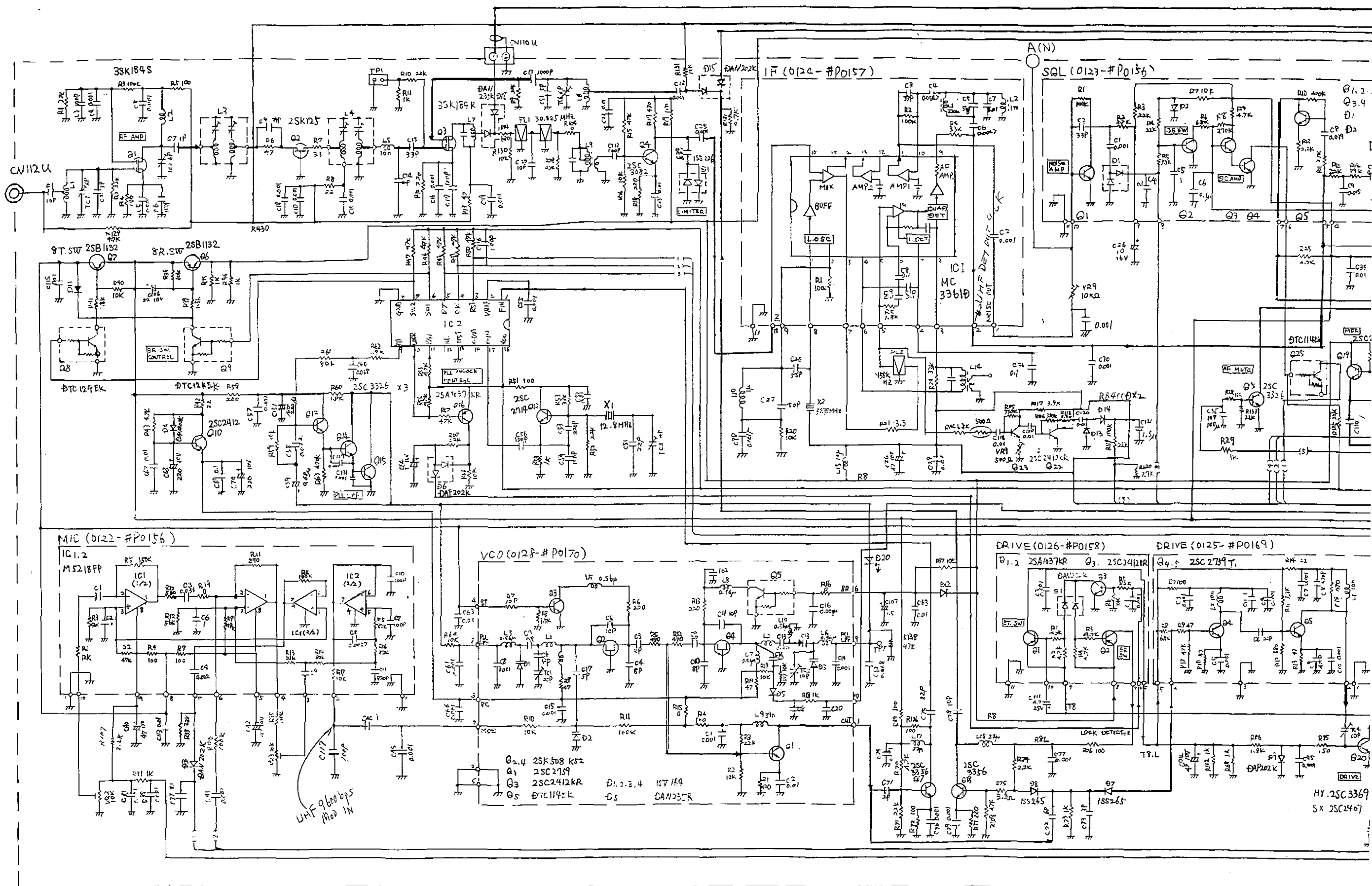


■ VHF MAIN SCHEMATIC DIAGRAM



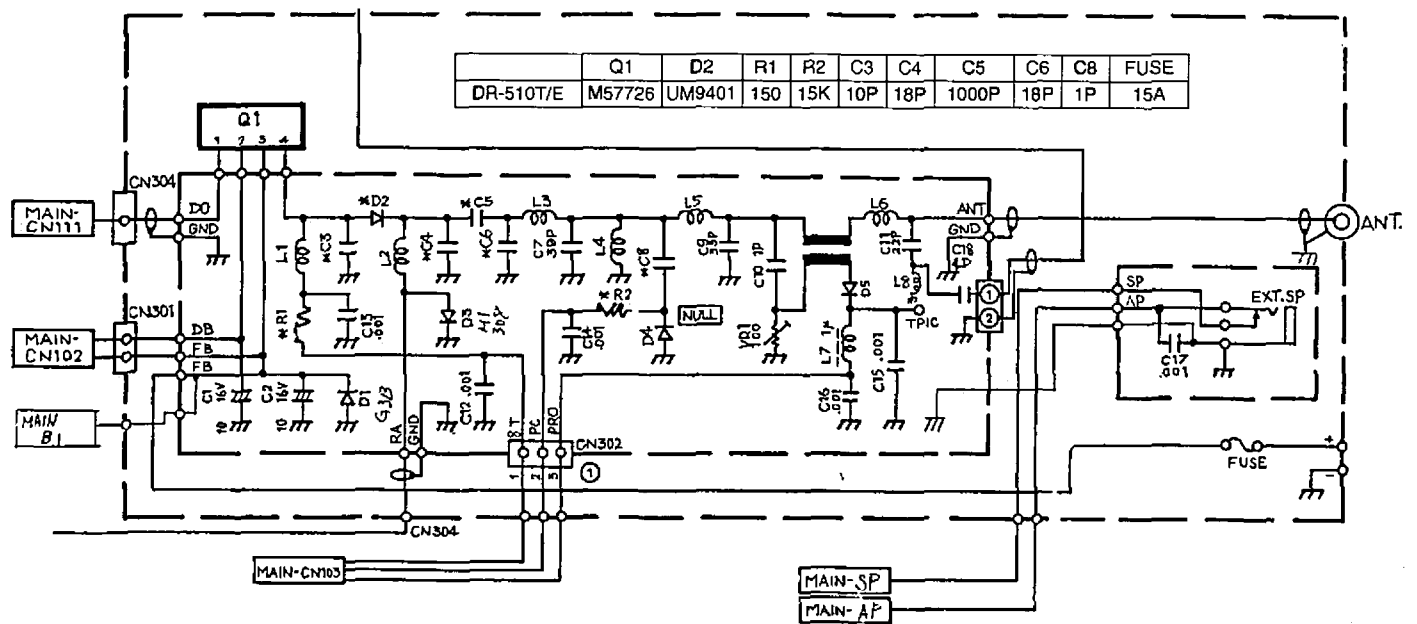


■ UHF MAIN SCHEMATIC DIAGRAM

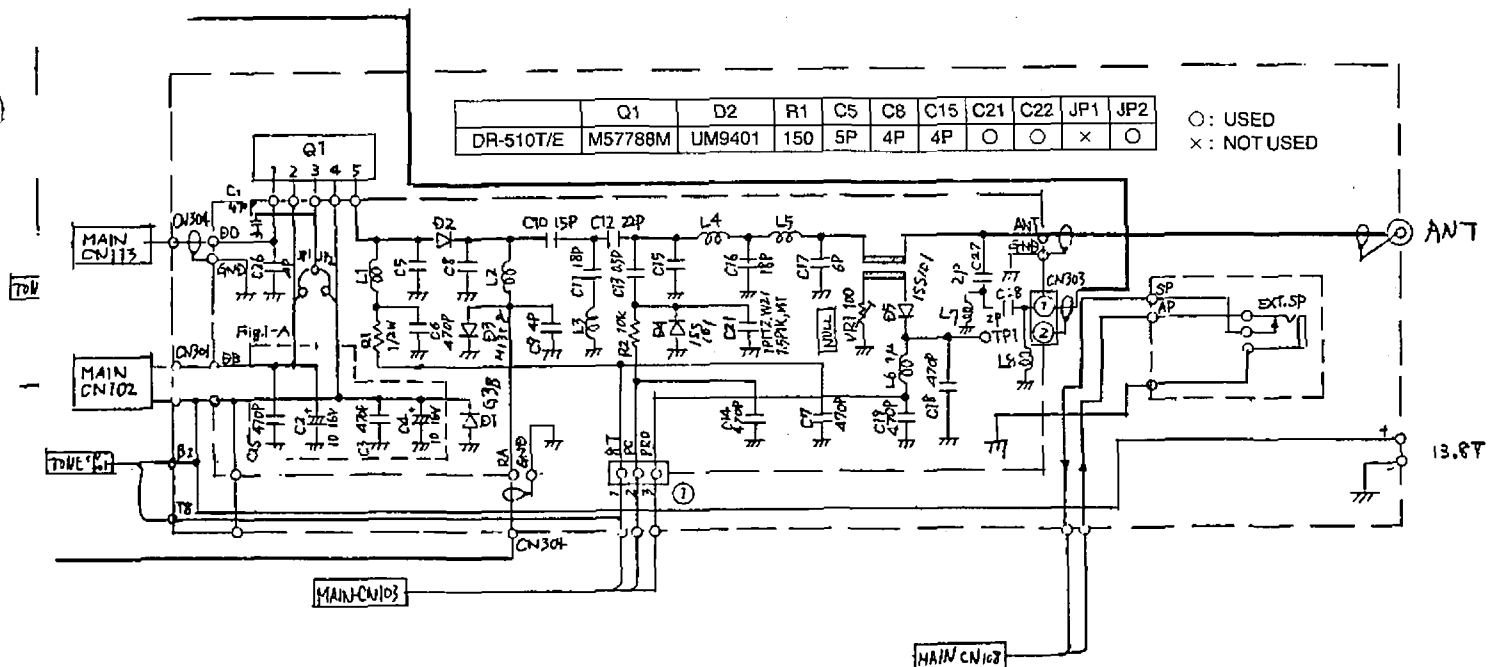


■ PA SCHEMATIC DIAGRAM

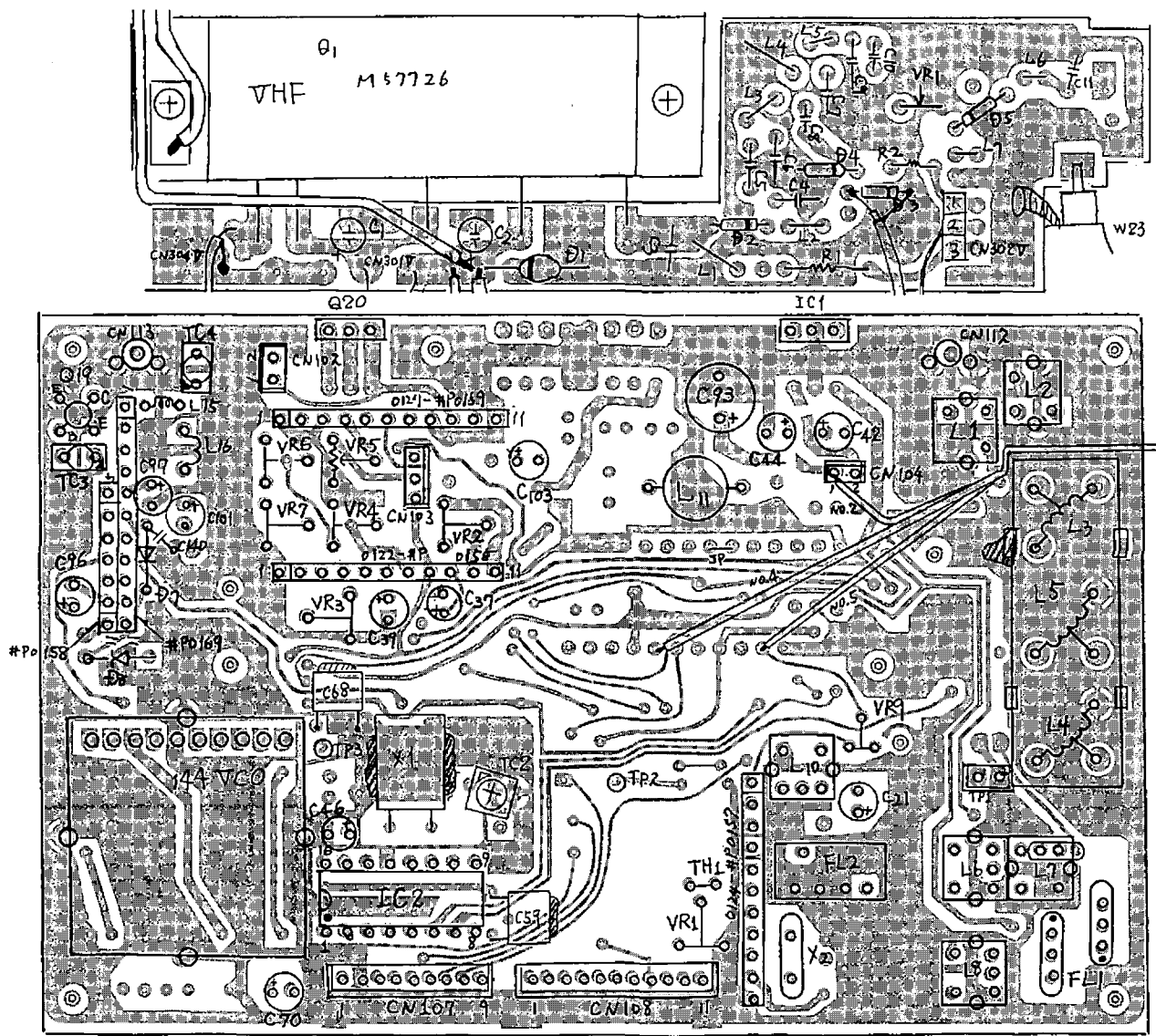
(VHF)



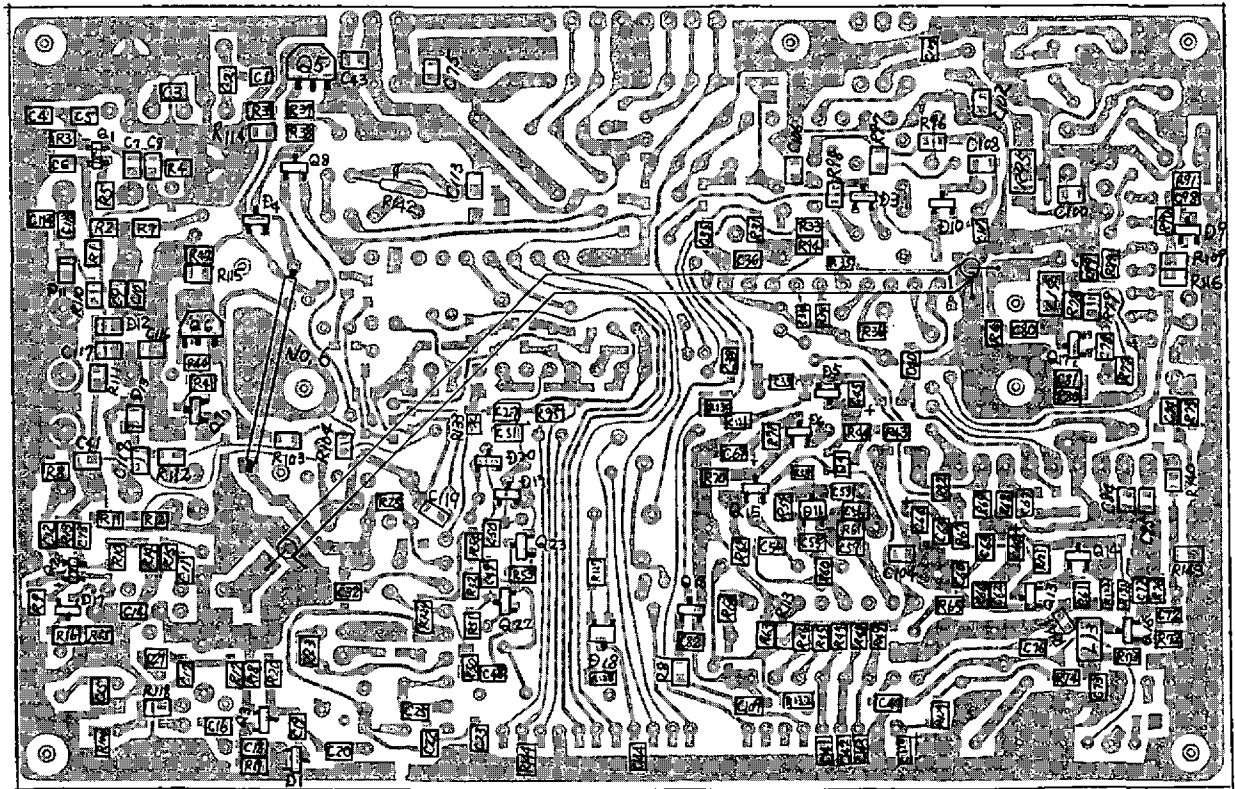
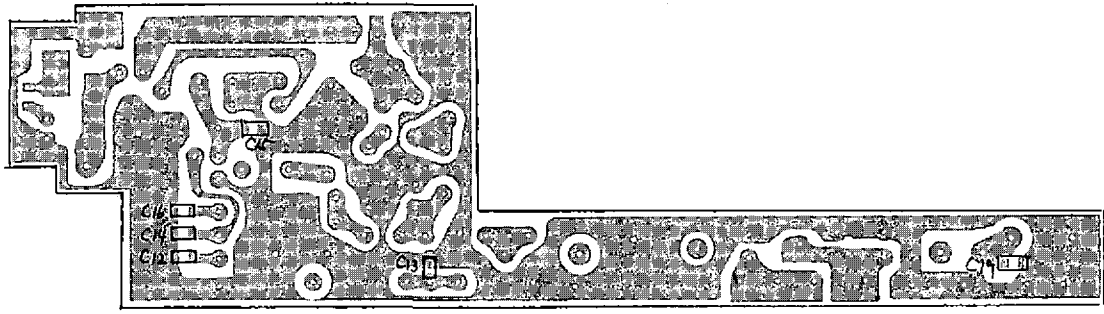
(UHF)



VHF PA AND MAIN PC BOARD

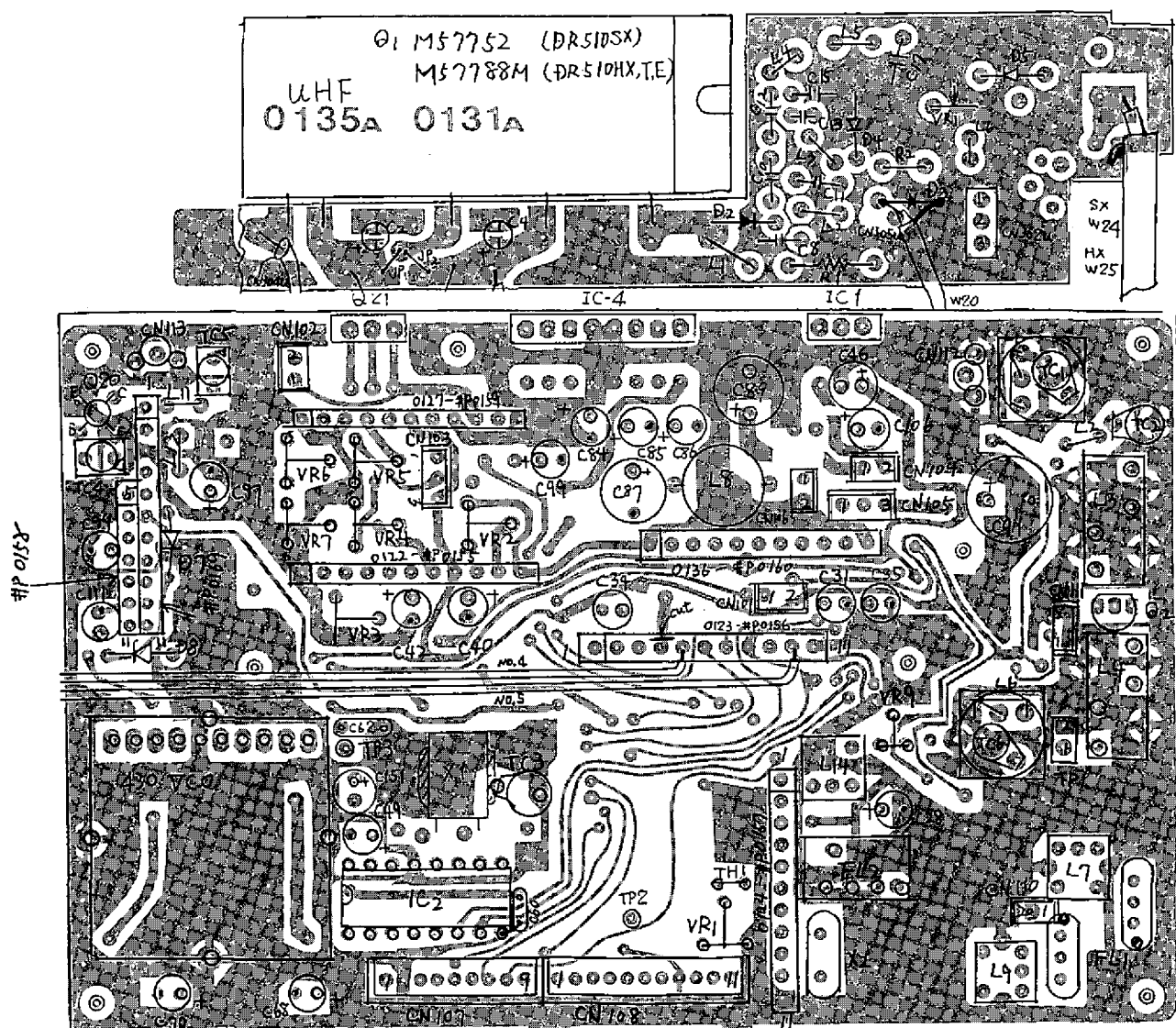


(Part)



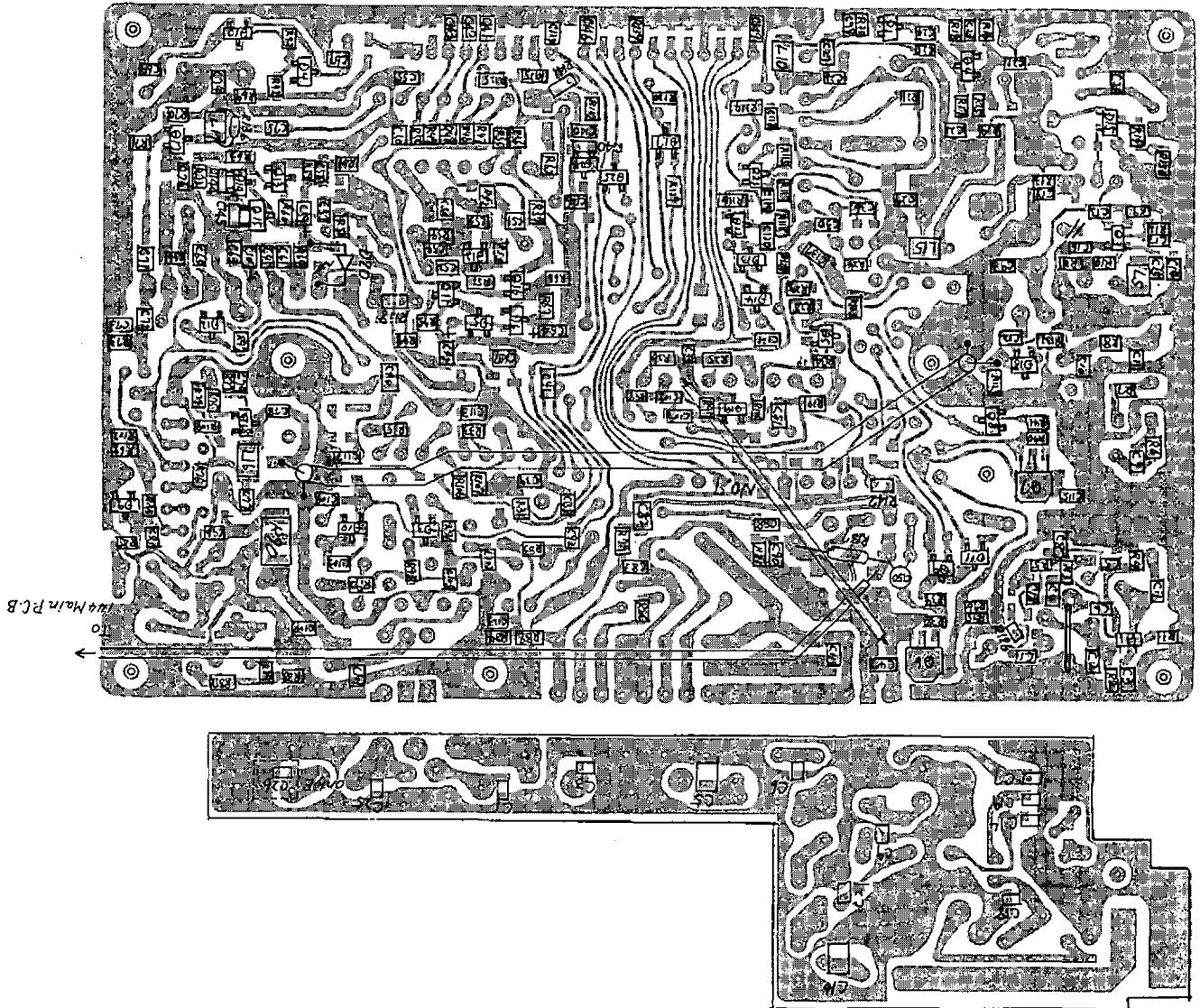
(Solder)

■ UHF PA AND MAIN PC BOARD

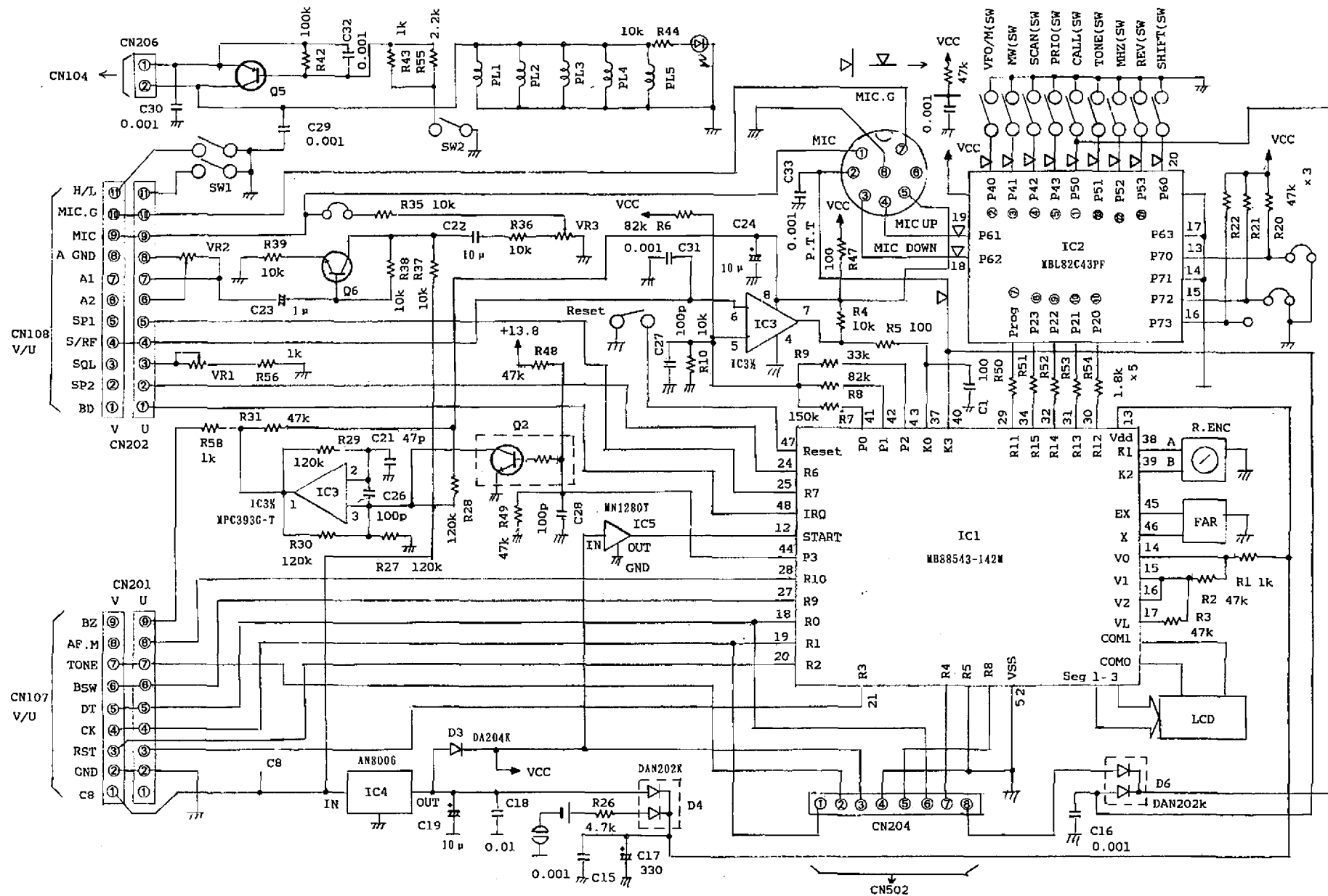


(Part)

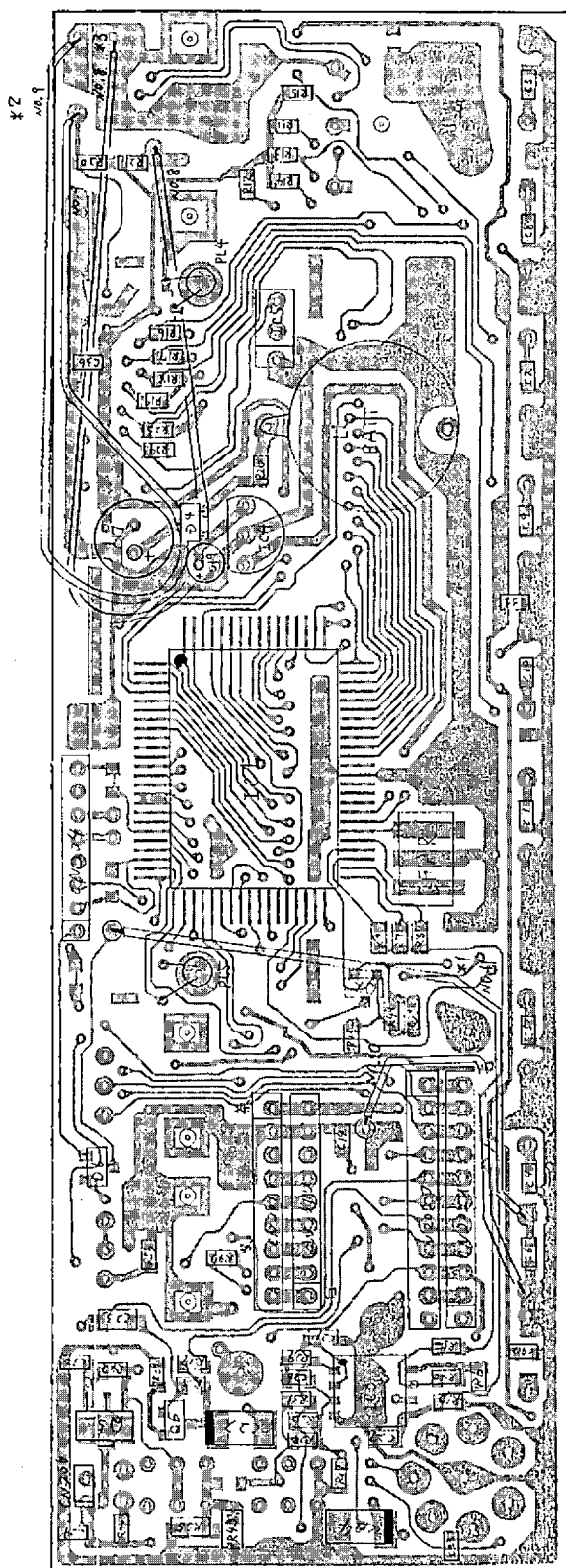
(Solder)



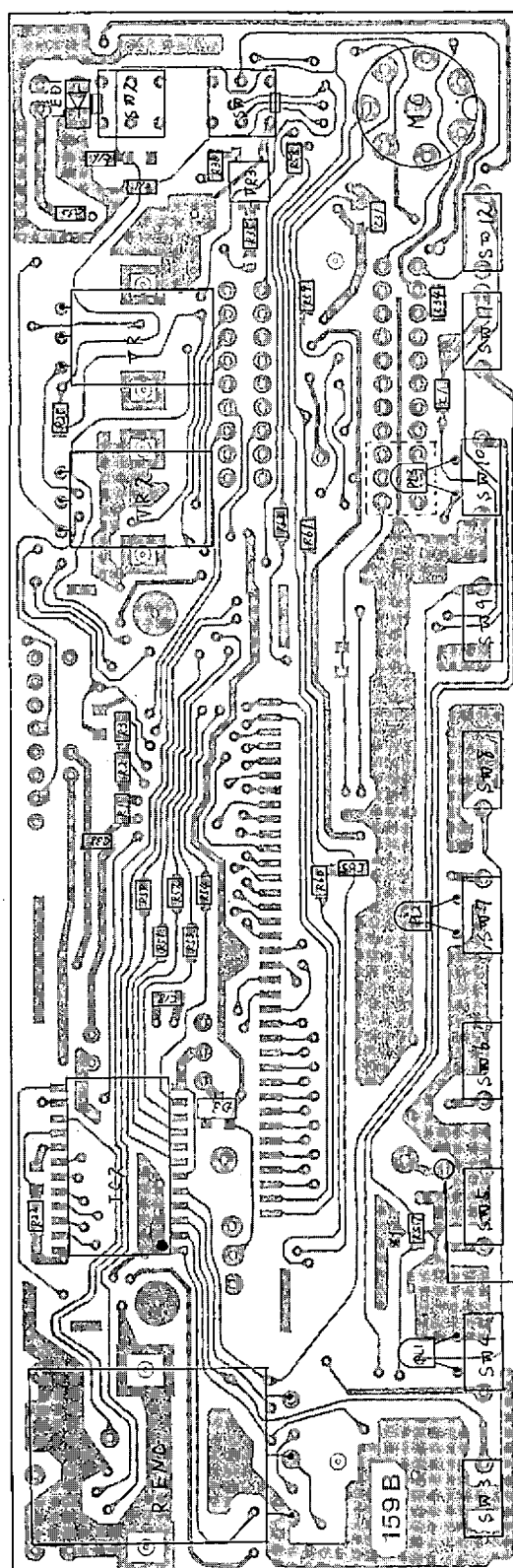
CONTROL SCHEMATIC DIAGRAM



■ CONTROL PC BOARD

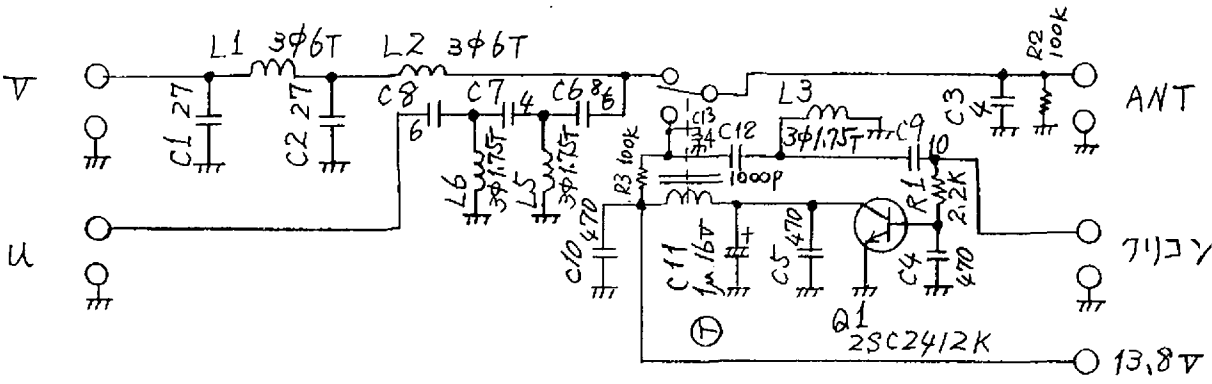


(Part)

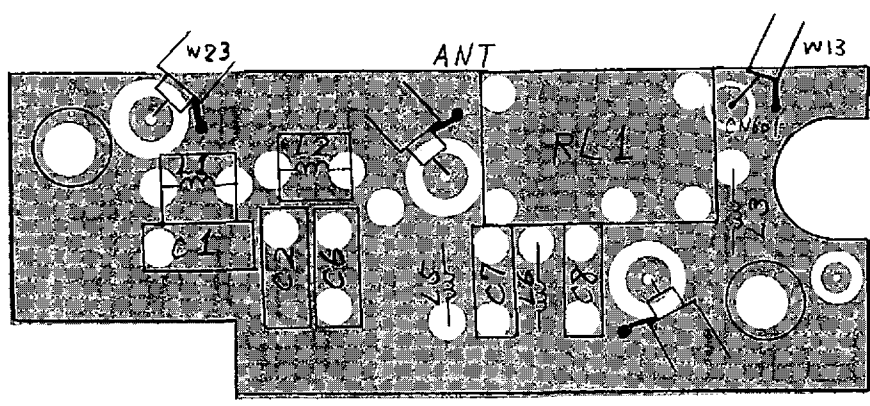
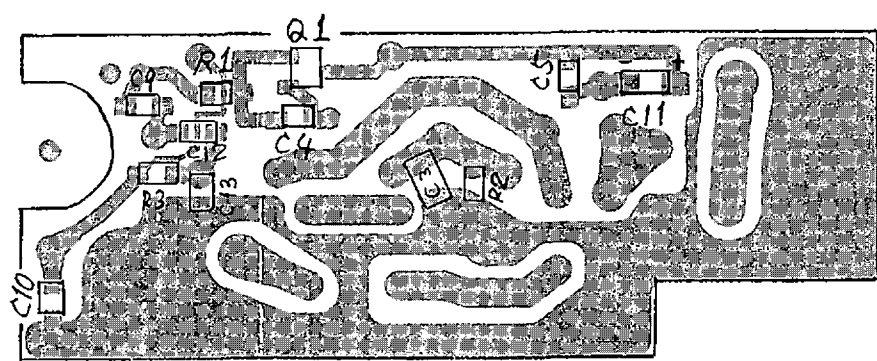


(Solder)

UPLEXER SCHEMATIC DIAGRAM

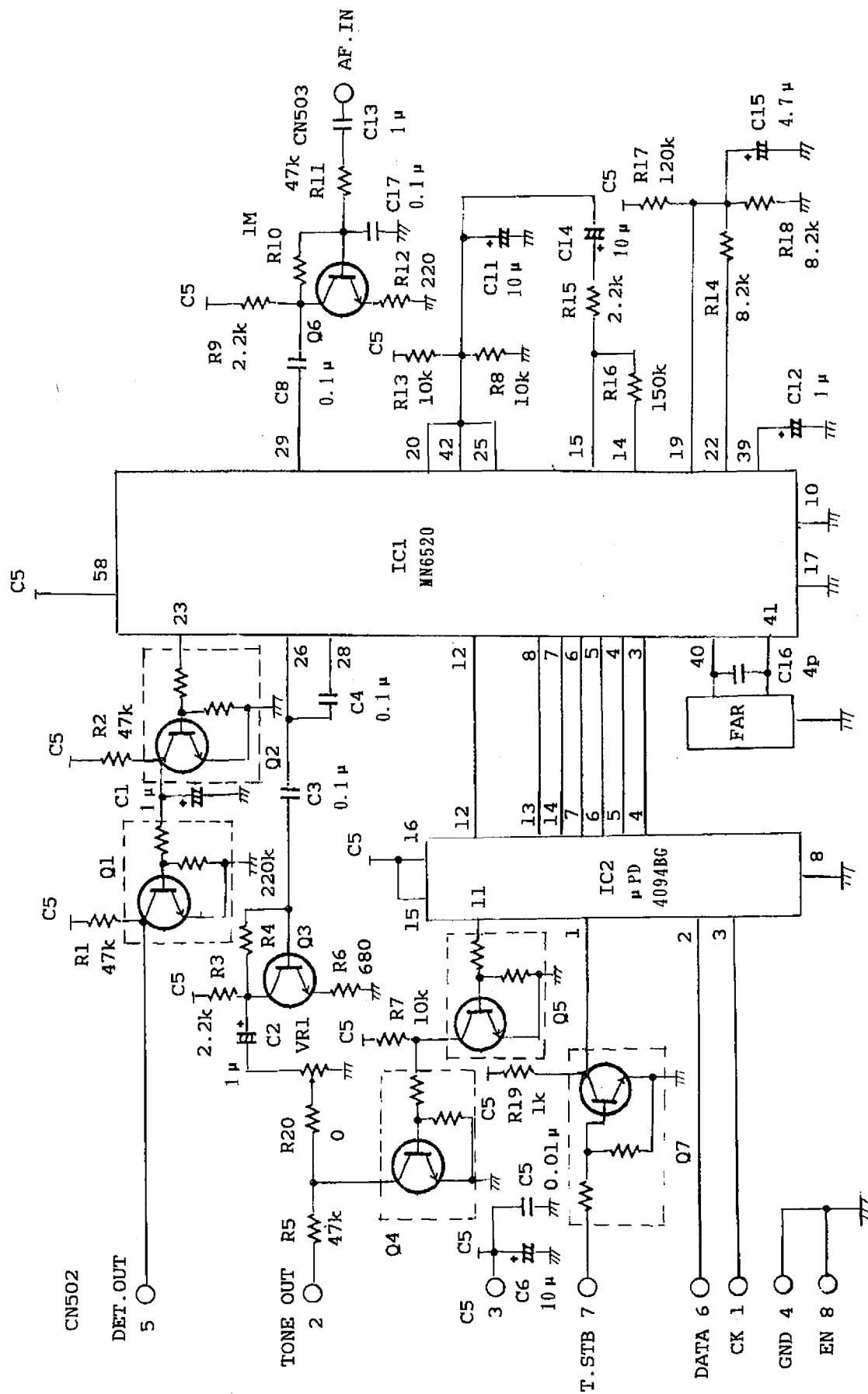


UPLEXER PC BOARD

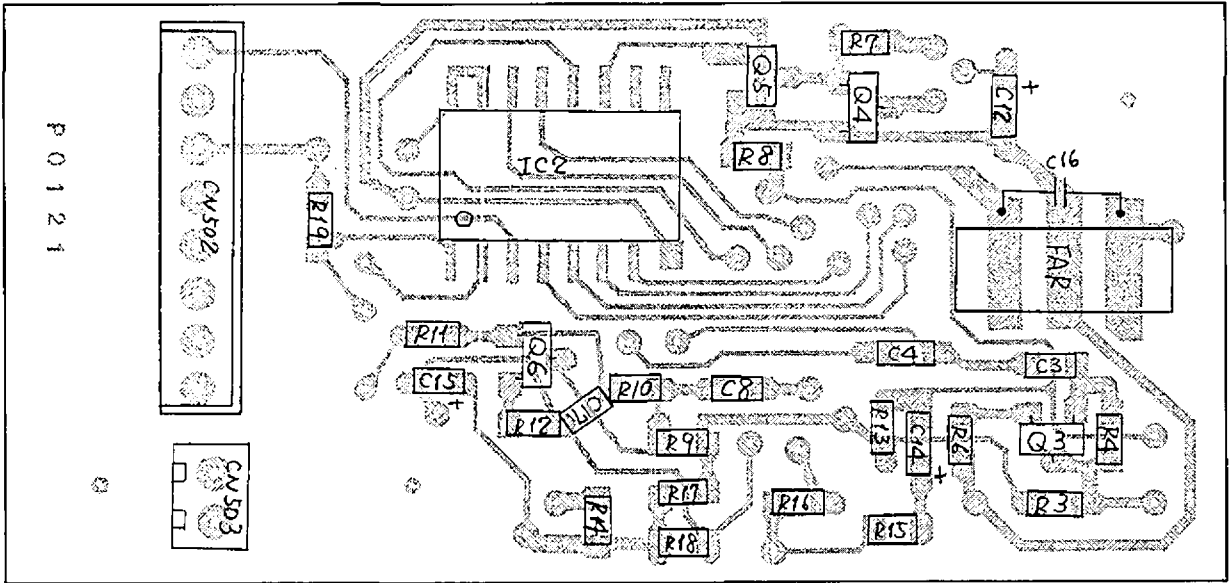


(Solder)

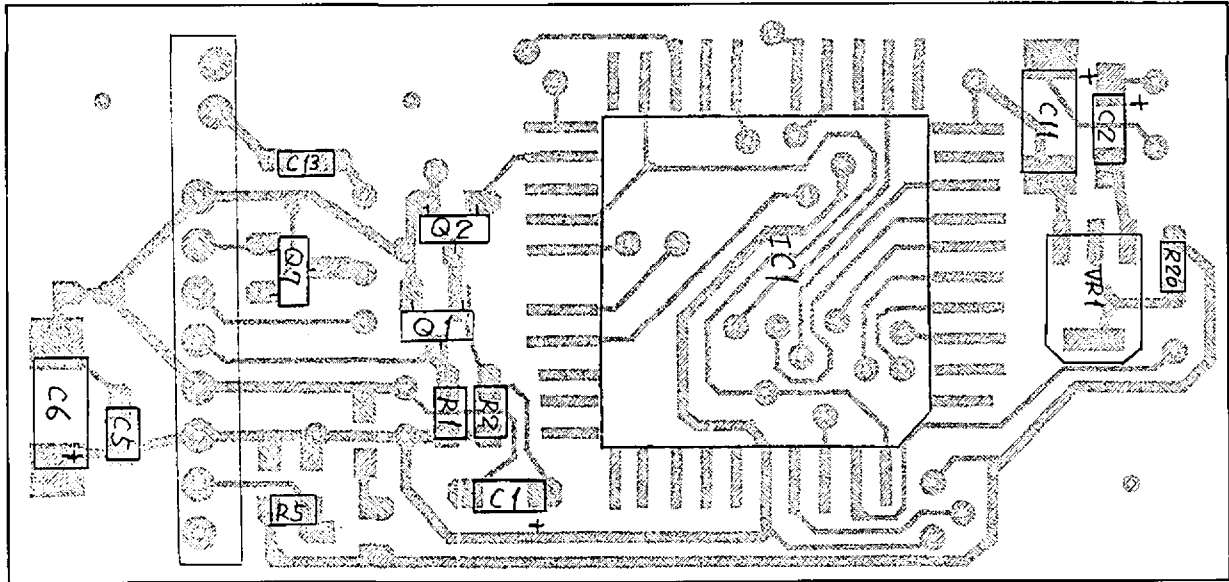
■ TONE SQUELCH SCHEMATIC DIAGRAM



ONE SQUELCH PC BOARD

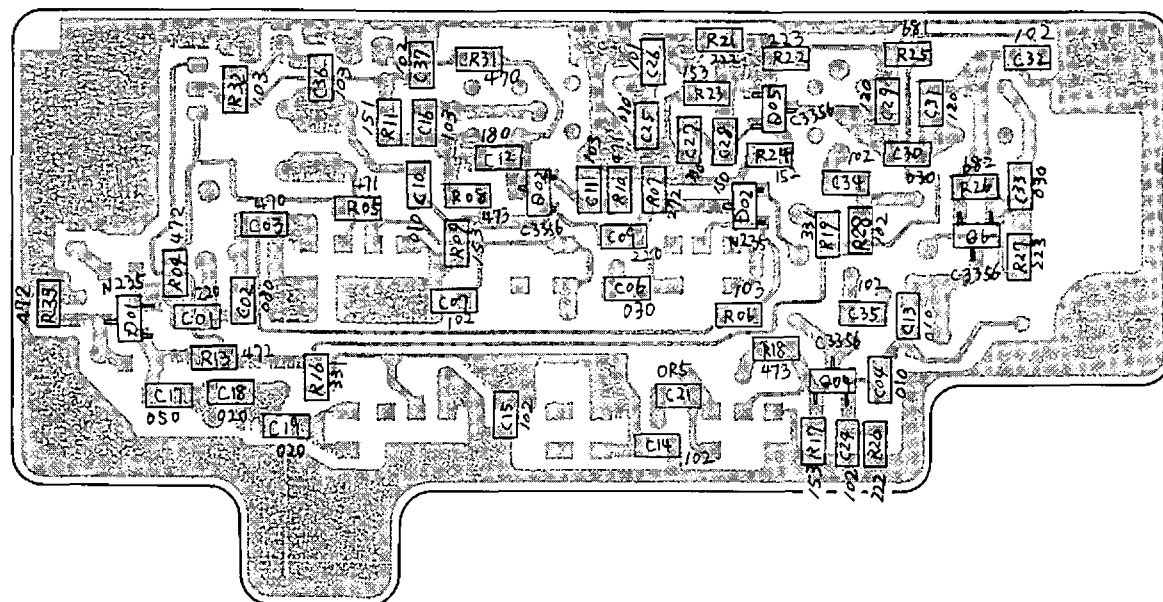
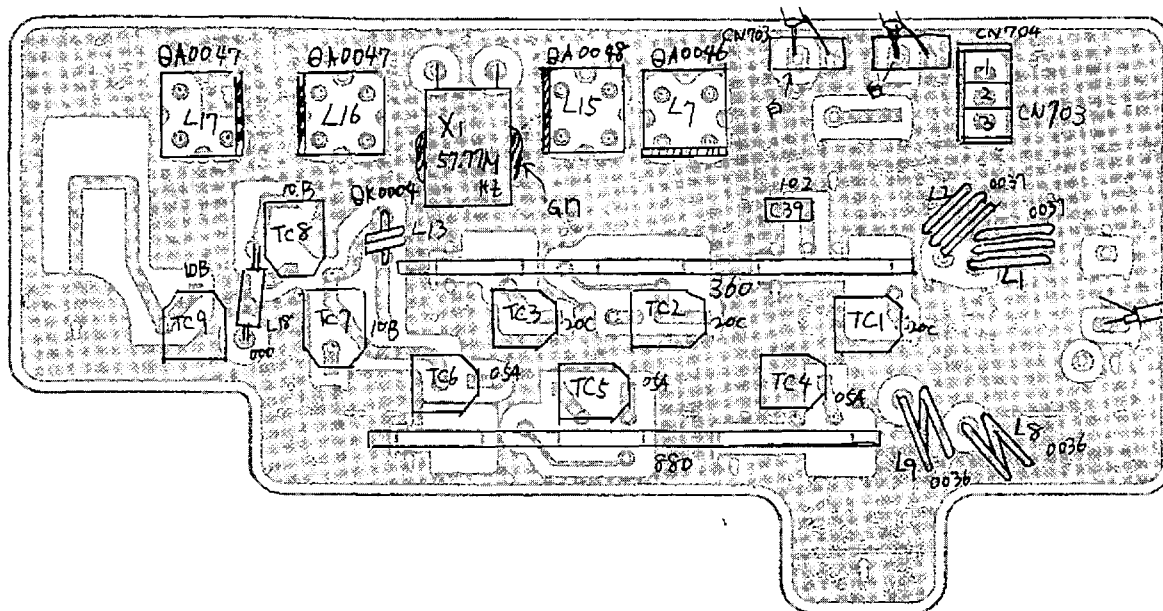


(Parts Side)

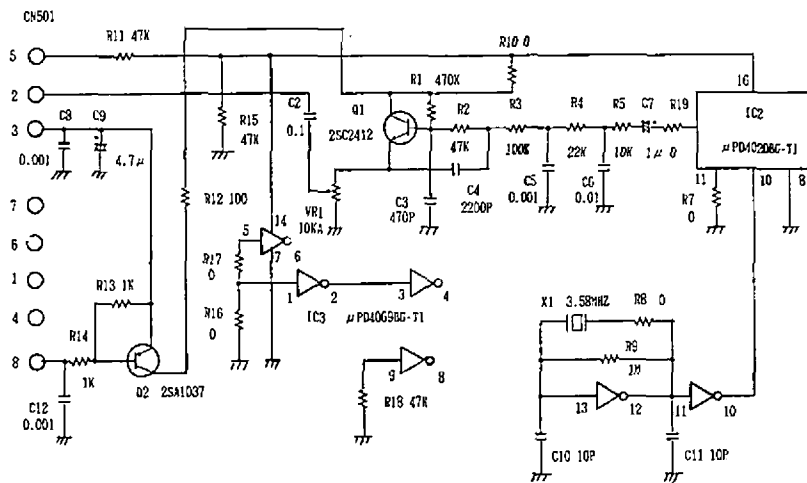


(Solder Side)

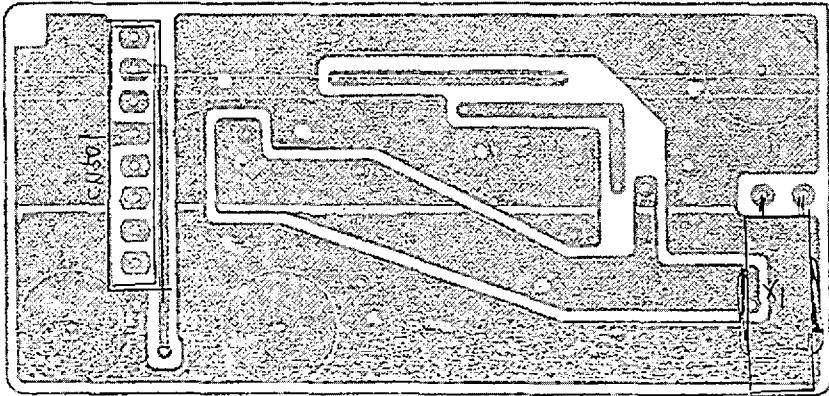
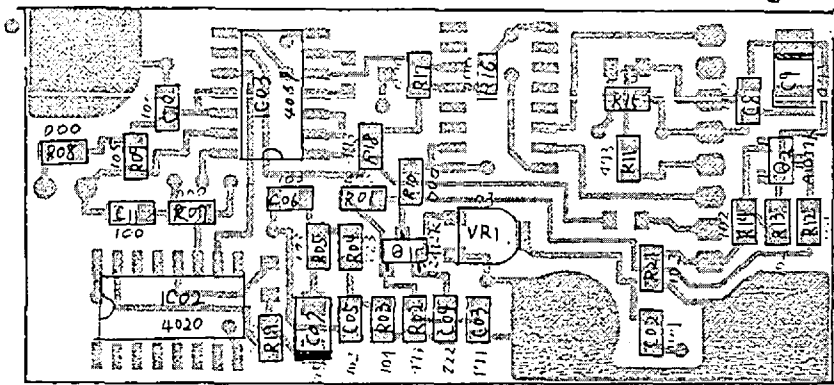
■ X'CON PC BOARD



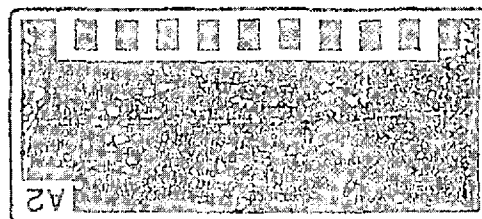
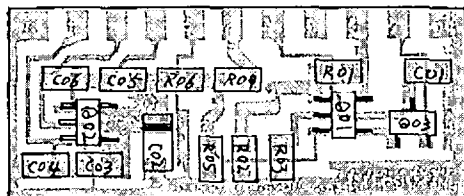
ONE BURST UNIT CIRCUIT DIAGRAM



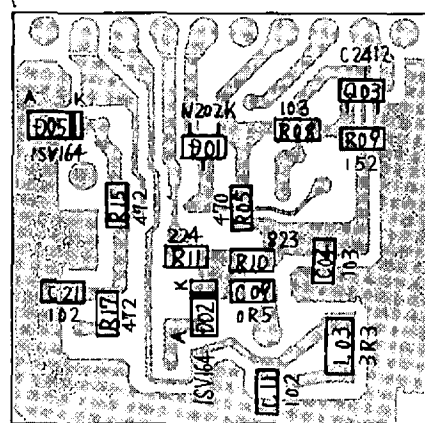
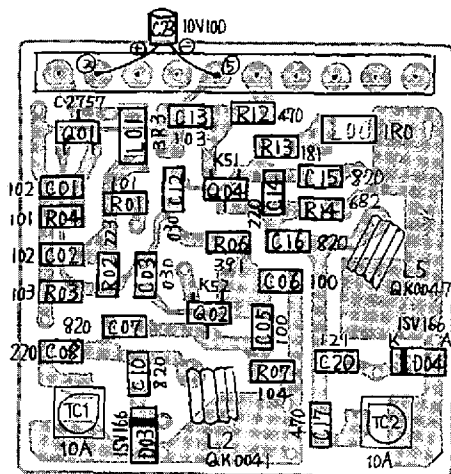
TONE BURST PC BOARD



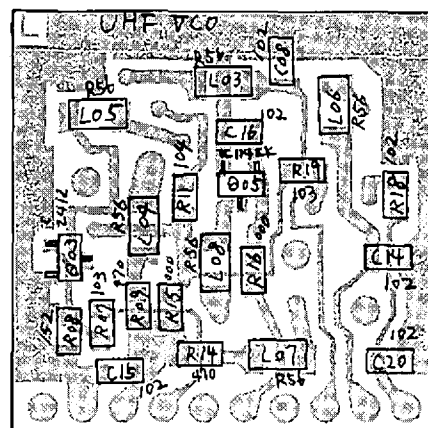
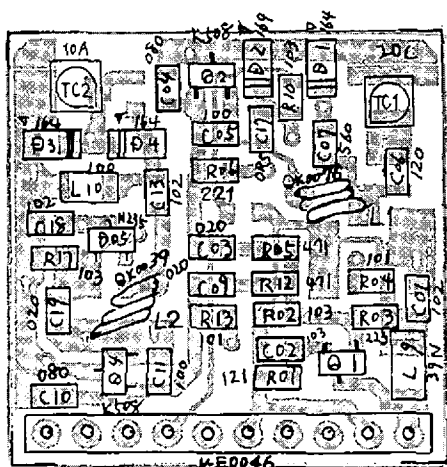
■ APC PC BOARD



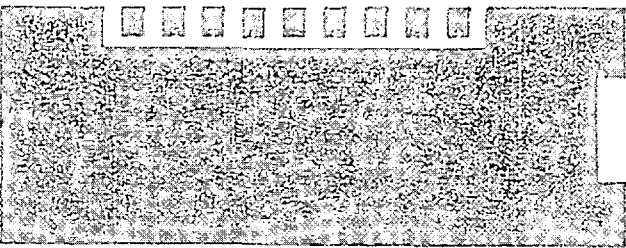
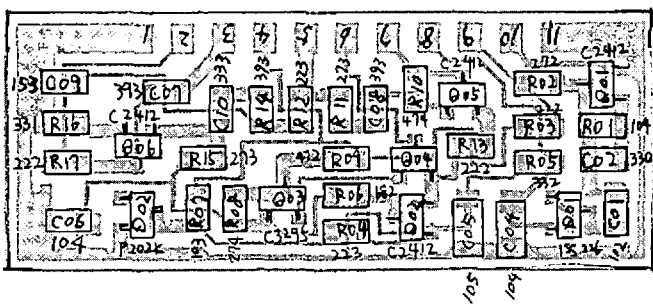
■ VHF VCO PC BOARD



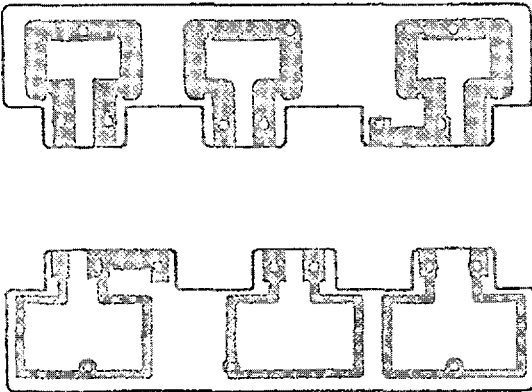
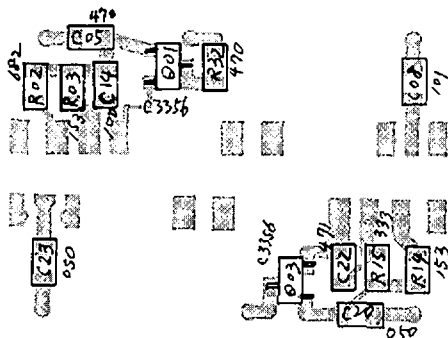
■ UHF VCO PC BOARD



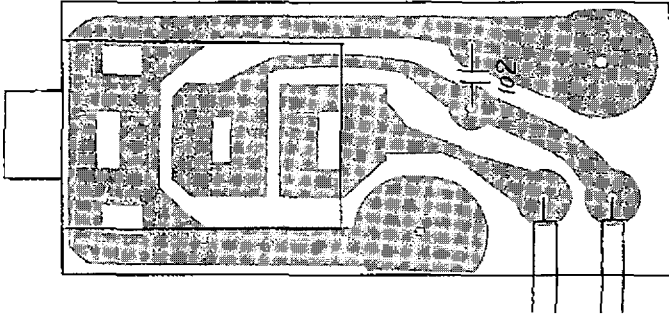
■ SQUELCH PC BOARD



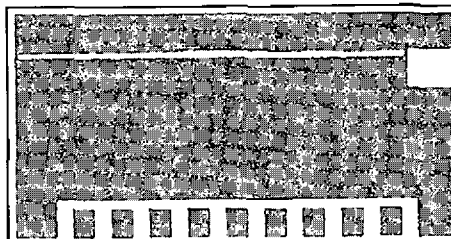
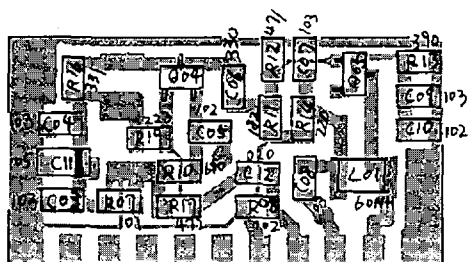
■ X'CON-SUB PC BOARD



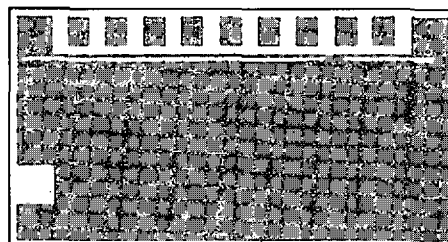
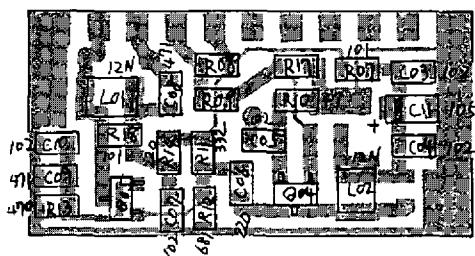
■ EARPHONE JACK PC BOARD



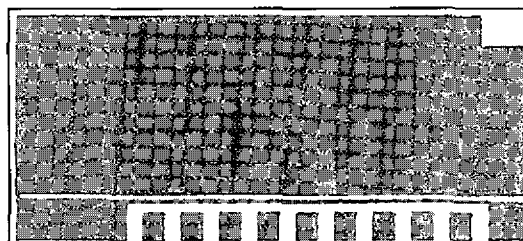
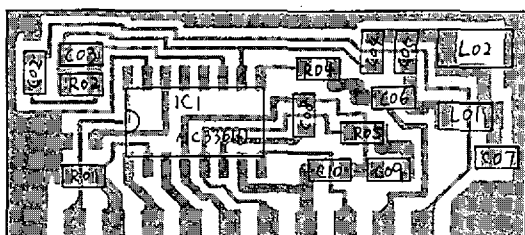
■ VHF DRIVE PC BOARD



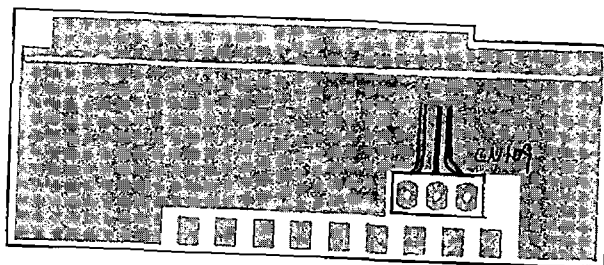
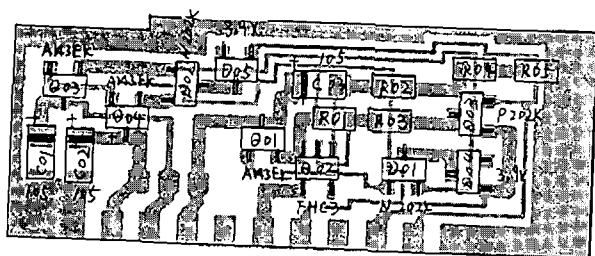
■ UHF DRIVE PC BOARD



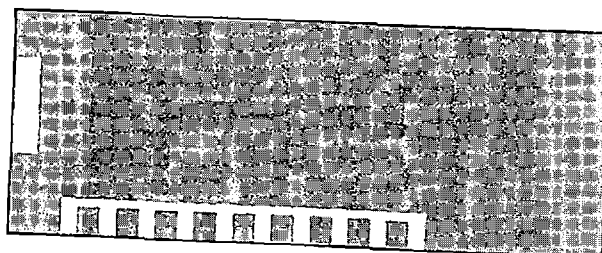
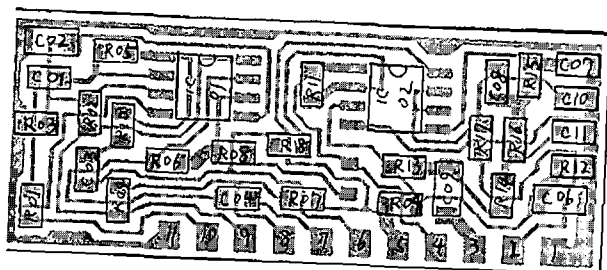
■ IF PC BOARD



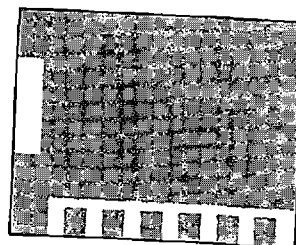
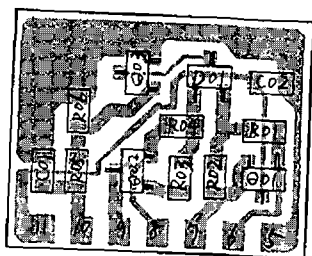
X SW PC BOARD



IC PC BOARD



DCK SW PC BOARD





ALINCO ELECTRONICS INC.

Head Office : "TWIN 21" MID Tower Building 23F
1-61, 2-Chome, Shiromi, Chuo-ku, Osaka No. 540, Japan
Factory : 1-1-1, Mishimae, Takatsuki, Osaka No. 569, Japan



ALINCO ELECTRONICS INC.

20705 S. Western Ave., Suite 104 Torrance Ca. 90501, U.S.A.
Phone: 213-618-8616

Dealer/Distributor